

PUBLISHED WEEKLY

THE RADIO RECORD

AND
ELECTRIC HOME JOURNAL

Vol. IV., No. 23.

WELLINGTON, FRIDAY, DECEMBER 19, 1930.

Price, 3d.

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Here is the set you have been waiting for. Beautiful in tone—beautiful in design—and wonderful value. Here are the specifications—but hear it. Ask your nearest Radiola dealer for a demonstration.

Price

£52/10/-

CIRCUIT: Latest development in Radiola Screen-Grid circuit.

TUNING DIAL: Illuminated and magnified dial makes for ease in tuning in the station desired. Horizontal position of dial permits use of large, clear markings—frequency range 550 to 1500 kilocycles.

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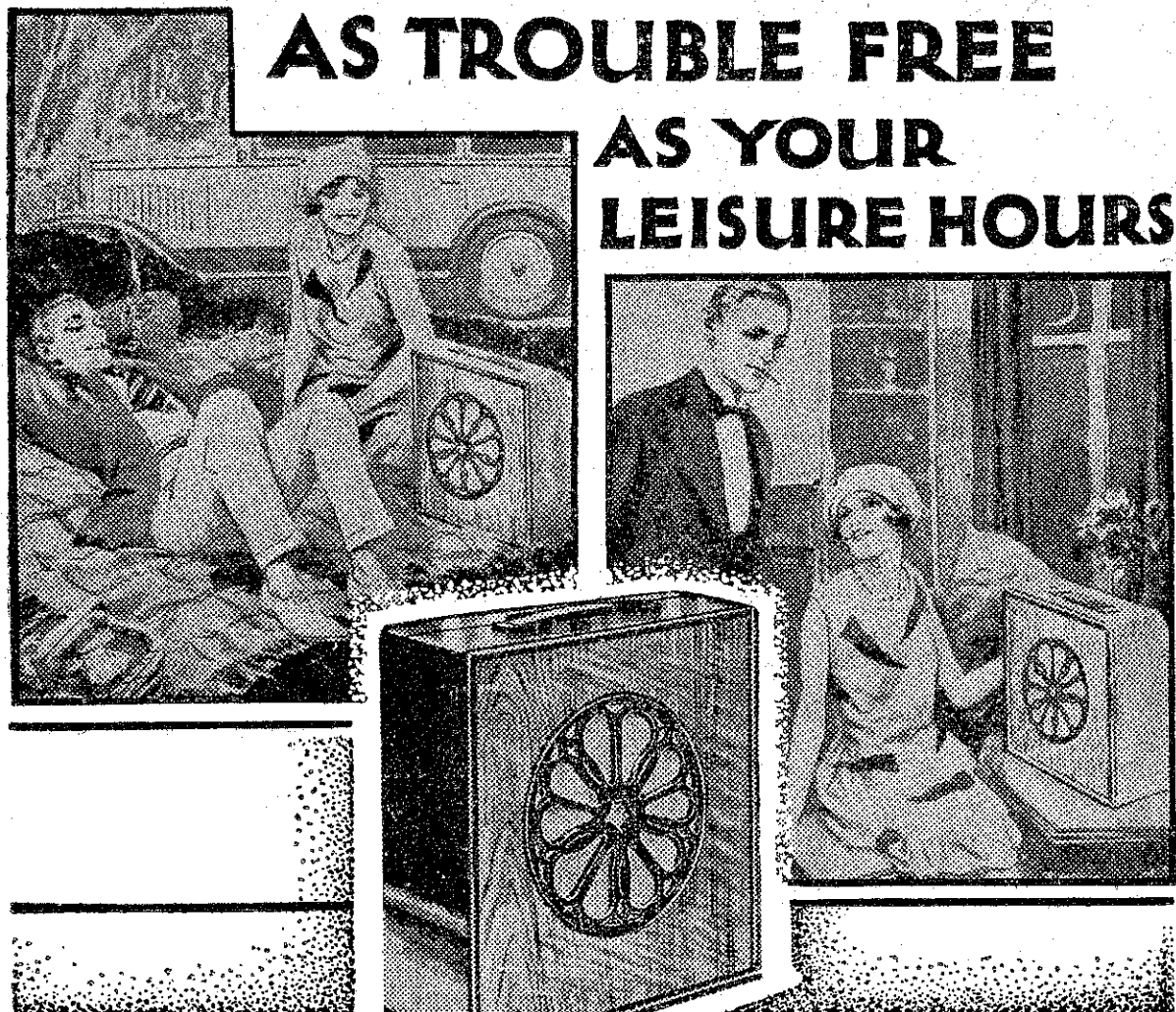
operated by one knob. One operates to regulate the input and the other to regulate the voltage on the screen-grids of the amplifier valves. By this method the regulation of volume from maximum to minimum intensity is accomplished without impairment of tone.

CABINET: Of walnut veneer; early English, showing Jacobean influence; 34½ in. high; 20½ in. wide; 17 7/8 in. deep. Interior of cabinet designed to provide excellent acoustical properties, usually achieved only in large areas.

RADIOTRONS: Four Screen-Grid type UY-224; two UX-245 and one UX-280.

Amalgamated  **Wireless**
(Asia) Ltd.

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CARRIE Philips says: "Music at the turn of a knob, when and where you want it... on the beach, in the car, in the train, at home! Open the lid and tune in—that's how easy it is with the Philips Portable Radioplayer. Nothing to fix: aerial, batteries, screen-grid chassis, loudspeaker—they're all in the cabinet. And Dad says that the British workmen who made this wonderful polished walnut cabinet have made the loveliest bit of furniture in the house! Sometimes we hitch it to our gramophone and amplify our records. See it and hear it! You'll agree it's the best ever in Radio".

PHILIPS

PORTABLE *radioplayers* W53R

Advertisement of Philips Lamps (N.Z.) Ltd. (Radio Division) Hope Gibbons Building, Courtenay Place, Wellington
Auckland Office: Paykel's Building, Anzac Avenue, Auckland

Sales mean Service

American Methods

for

New Zealand Market

COMING direct from one of the largest American radio manufacturing concerns, Mr. G. J. Menon had some interesting observations to make when we were talking with him a few days ago. In the States radio is conducted on colossal lines. Only recently we published figures that showed that almost one person in every two had a set, and this great development has taken place in the course of five or six years.

In the earlier days of radio, Mr. Menon told us, a very large number of small dealers sprang up. In some cases they knew a great deal about radio, in others very little. But when the American public took radio to heart it became not only a selling proposition but, to use their own expression, "the set must be kept sold."

This means that every big radio organisation must keep an efficient service organisation, so that the customer is satisfied not only the week he buys his set but so long as he owns one. Radio has become such an advanced science that only a relatively small number can concentrate on the technique necessary to keep a set in successful operation. It is recognised that no longer can the amateur or the self-trained, half-qualified service-man keep a set operating satisfactorily.

THE industry has realised, too that valve replacements and other minor adjustments must be made regularly, and the only way to do this is to have an organisation that is not only properly organised but has attached to it properly equipped and skilled men.

When a consumer buys a receiver, facilities are arranged whereby he can contact the factory directly he experiences trouble. They immediately communicate with their nearest out-pit channel and a service-man is quickly upon the scene. It was to organise the New Zealand branch of his business on these lines that Mr. Menon came to this country.

Distribution in America is on altogether different lines from what it is here. It may or it may not be known that electricity is supplied, not through public bodies, such as power boards, but through private and often competing companies. In order to invite consumers to use more electricity, large showrooms and retail businesses are opened. Everything from refrigerators and radios down to coffee perco-

lators are sold by these companies. They, too, maintain a staff who can readily be called upon to keep the device in working order. Furthermore, as far as radios are concerned, they maintain one very highly-paid technician whose duty it is to take new receivers, pull them to pieces, and bring out an extensive report. This report is then placed before the directors, who decide whether the line will be marketed. These big

companies can then be relied upon to sell only first-grade radios, and once they are sold, to keep them working. In this manner many of the problems that are troubling New Zealanders at the present time are overcome.

The cost of receivers is, of course, very much lower in America than it is here. The set for which we have to pay £40 can be bought in the States for just over £20. This can be accounted for by the fact that the import duty is about 50 per cent. "Still," added Mr. Menon, "the American public has to be 'sold.' It is as hard to sell one of these £20 sets as it is one of the more highly-priced combinations."

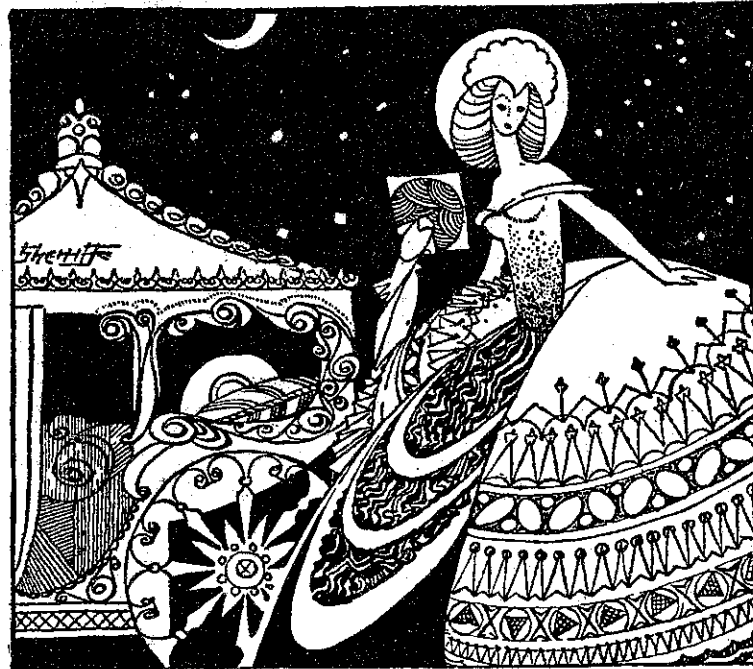
This remark raised a further query concerning American sales methods, and we learned that a short time ago a man would go into a store wanting a pair of socks and come out with a pair of shoes that he did not want. "The Yankees are beginning to realise that this is not good business. That man is a lost customer, and now the idea is to sell a man what he wants and keep him satisfied."

Tremendous sums are spent on advertising. On a rough estimate £2/10/- is required in this field alone to sell every radio set. "It comes to us over the air, through the newspapers, on hoardings, and everywhere you can think of," added Mr. Menon.

WHICH remark, of course, readers can imagine, raised the old question of advertising over the air. "What really do you think of advertising over the air?" we asked.

"I don't like it. It is nauseating. The bigger companies are beginning to realise this, and advertising now goes over very subtly and there is very little of it. We call these programmes 'sponsored' and they are very well received. Without some system such as this it would be quite impossible to maintain a high programme standard.

(Continued on page 2.)



"Cinderella Up-to-Date"

A pantomime arranged and adapted by

ERIC F. B. WATERS and "L.C.B."

Presented by

"THE PANTOMIMISTS"

Assisted by

Reg. Morgan and his Orchestra, and--

JOCK LOCKHART,

Scottish comedian.

From IYA

December 26

Sales and Service

(Continued from Page 1.)

We not infrequently hear Stokowski (conductor of the Philadelphia Orchestra), and his broadcasts are worth 2000 dollars (£400) a minute, so you can quite readily understand how the advertising cost of each receiver is taken up. Direct advertising is tolerated by certain sections of the community, but the middle and upper classes simply refuse to have it coming direct. In some of the smaller local stations it is greatly in evidence, but on the bigger chains direct advertising has almost disappeared.

WE were surprised to learn that many families have two and three sets. Of course it is more or less understood when they cost only £20 a-piece and that the time-payment system has a strong hold in the States. "It is not uncommon to go into some of these larger households," said Mr. Menon, "and hear the daughter listening to jazz, the son to a ball game, and the old people to some old-time songs."

Selectivity Problems.

IN the States there are some 500 broadcasting stations, and some of these are on tremendous power. One wonders that any programme can be heard with this terrible maze, but it appears that in all but a few ill-favoured locations a wide range and variety of stations can be tuned in. With this large number of stations many must operate on the same frequency at the same time, but these stations are scattered right round the Continent, so that only in a very few locations do two stations on the same wavelength clash to make an incomprehensible burble.

Each station, or group of stations, must be separated by 10 kilocycles, and this means that the modern set must be capable of a 10 kilocycle separation. It also means that the broadcasting station must be very sharply tuned. "It is remarkable," added our guest, "how sharply these stations send out their carriers. A 50 kilowatt station can be made to disappear with surprising rapidity and shock areas are very restricted. Imagine the chaos if you had two or three local stations that were not sharply tuned. Of course, all the big stations are crystal controlled."

Talking of selectivity and receivers raised the question of next year's set. The super-heterodyne, said Mr. Menon, had been introduced mainly on account of the selectivity problem. He was not prepared to say whether it was going to be a general characteristic of next year's model or not. "Just at present the manufacturers are sitting on the fence, and they do not know which

way to jump," he remarked. The midjet sets are another problem that most manufacturers are considering. Their future also is somewhat in doubt.

The Loftin-White.

BEING interested in the Loftin-White, we asked if it was being absorbed into any of the new models. We were told that almost without exception it was not. There are certain drawbacks to the use of that amplifier. In the first place, the royalties are very high; secondly the wonderfully pure tone that it gave cannot fully be appreciated by people who clamoured for bass and heavier reproduction; and, thirdly, manufacturers consider that the life of the 45 or 50 valve will be much shorter than if used in the average set. The bias of the output valve is dependent upon the plate current of the screen-grid valve, and as this takes some time to warm up there is a period when the bias of the output valve is not present.

Talking of new season's models also raised the question of tone control. It was introduced many years ago in a different form to what it is now, and it has been reintroduced only because the public clamour to have a means whereby they can spoil their reproduction. Tone control only provides a method of cutting off the high frequency. A set with a good audio receiver will reproduce a range from 5000 or 6000 down to 50 or less. When a tone control is added a means for cutting off all frequencies above 3000 is also provided. However, by cutting off the

high frequencies one is also able to cut out a great deal of the electrical interference, which is generally just above 3000. It is for this reason that the set with the heavier bass reproduces less noise than does a set with an even response.

In the States the interference question is acute. There are so many electrical gadgets, and the country is so well reticulated with electricity, that the only solution which is available is to increase the power of the stations on one hand and by-pass the noise on the other. The former increases the difficulty of the selectivity problem and the latter provides a means for ruining the tone. "So you can quite readily imagine that radio in America is somewhat at a deadlock," remarked Mr. Menon. Arrangements have been made for three or four stations to come on the air with 100 kilowatts of power, and these should be heard in New Zealand quite well.

"Generally speaking, there will be very little alteration in the 1931 models. They will have only a few extra refinements, and probably the cabinets will be somewhat smaller, but I cannot foresee any big sweeping change," he added.

Highly-trained Staffs.

SPEAKING of the progress radio has made, Mr. Menon pointed out that there is really every facility for advancement. The big concerns maintain several laboratories with their staffs working almost in competition. When a model is produced the directors give it every consideration from the marketing point of view, and only the best are selected. This means that every refinement possible is added to a set. For this reason it seems as though radio will settle down to be a business of three or four huge concerns, who will monopolise the market. It seems as though the day of the small man, both in production and in distribution, is rapidly drawing to a close.

The Battery Set.

AS for the battery set, it is still selling, and many of the big radio manufacturers are still turning out efficient battery models. In fact a complete line, including battery sets, direct current main sets, a.c. sets, and a.c. combinations, are still being manu-

Our Mailbag

Old-time Music.

I WISH to compliment the R.B.C. on the new programmes, especially the old-time dance from Dunedin, which we thoroughly enjoyed. Would it be possible to have an old-time dance night every month? I feel sure it would be appreciated by many listeners.—Co. Mac. (Pukeuri).

A Transmitting Complaint.

I AM familiar only with the Dunedin and Invercargill B stations, but their broadcasting of records is immeasurably superior in quality to the YA stations. Is there any reason why this should be? When there is a B-class station broadcasting during the dinner music session it is almost ridiculous to turn from it to a YA station and note the contrast. From the YA stations there is no bass at all, from the B station balanced music which is a pleasure to listen to. Some months ago 2YA was fairly good for a while, but changed suddenly, and since then has been almost worse than 3YA and 4YA. As the payer of 30/- per year to the Broadcasting Company, and nothing to the B stations, might I suggest that the former try to obtain temporarily the services of one of the engineers or operators from a Dunedin B station with a view to improving matters? Can you tell me whether the Broadcasting Company follows any policy or system in the balance between bass and treble in its transmission, or is it left entirely to chance? For months until recently the 2YA Orchestra and orchestra were painful to listen to, but a few weeks ago completely changed and are now quite good. Brass bands, however, as broadcast by 2YA are still as bad as the orchestra was. From 4YA on the other hand bands are now very good. "Quality" (Hillgrove).

[The transmission from the YA stations is not left to chance. The output is measured, and the curve from bass to treble is straight. Providing a receiver is good the tone from the YA stations can be received in perfect balance.—Ed.]

factured. The out-back settler is in need of radio more than anyone else—and he needs modern radio. The d.c. screen-grid valve, although less complicated than the a.c. model, is not as satisfactory, and d.c. screen grid jobs are not as popular as are their a.c. successors. "There appears to be in New Zealand, as in America, a big market for d.c. battery sets, but the modern salesman must go out and sell them," remarked Mr. Menon in conclusion.

BATTERY RADIO RECEIVER

Wonderfully Efficient All-Wave Receiver, the

NEW COURIER

SCREEN-GRID

Will receive all the usual Overseas Broadcast Stations, and the World's recognized Shortwave Stations at good loudspeaker strength. Complete with Philips Valves and Speaker, Burgess "C" and "B" Batteries and Accumulator, all ready to attach to aerial.

PRICE ... **£27/10/-**
Small extra cost for Shortwave Coils.

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32-volt type for Dalco Lighting Plants for A.C. Radio Sets

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P.O. Box 1028.

News and Notes from the North

(By "Call-up.")

ON December 29 the band from the s.s. Rangitiki will play from 1YA. On the same evening four Wellington artists will appear at the Auckland station, these being Mr. S. E. Rodger, Miss L. Nicholas, Mr. V. Evans, and Mrs. S. Duncan.

MR. RALPH ESKRIGE, an Auckland tenor who has been in Australia for three years, has now returned to New Zealand and will sing from 1YA on December 28. Miss Phyllis Gribben, another well-known Auckland singer who has been away, is also returning and will be heard from 1YA on December 31.

THE new programme schedule which came into force at all the YA stations on December 1 has been very well received in Auckland. It is generally admitted to be a welcome improvement upon the former arrangements, and the 1YA programmes are definitely brighter when reviewed by the week.

THE new orchestral octet at 1YA which is conducted by Mr. Harold Baxter has proved a great success, and has received some very high compliments from listeners and from fellow musicians. Their balance and intonation are particularly fine, and one Auckland listener who is a recognised musical authority says that their playing is the most artistic he has heard.

HOLIDAYS for some people usually mean hard work for others, and Christmas with its holidays for most is one of the busiest times of the year in the broadcasting studio. Such is certainly to be the case at 1YA this Christmas. During the holiday week the station will be on the air from noon and there will be no silent day. On Christmas Eve the station will not close down till midnight.

A VERY well-known 1YA entertainer, Mr. T. T. Garland, is giving his last item from the station this week. Mr. Garland, who is better known to the children as "Uncle Tom," will be greatly missed from the ranks of the studio uncles, for he has attained a great popularity with the children. He has also been a fairly regular artist for the grown-ups, his forte being humorous items. As yet no successor has been appointed to the "uncleship" vacated by Mr. Garland.

A NEW mixed quartet known as the Orpheus Quartet and comprised of four members of the 1YA Choir is to make its first appearance from 1YA on January 14. The members, all well-known singers, are Miss Christie Foster, soprano; Miss Cathleen Mulqueen, contralto; Mr. H. S. Poffley, tenor; and Mr. E. M. Newling, baritone. Miss Mulqueen and Mr. Poffley were among the soloists in the 1YA Choir's presentation of "St. John's Eve" on December 9, which was one of the outstanding performances heard from the Auckland station during the last month or two. Listeners to the northern station are certainly most fortunate in having a choir such as this singing regularly before the microphone, for their work maintains a consistently high standard.

A Radio Christmas

Extended Broadcasts and Feature Programmes

THIS is to be a Radio Christmas. Never before have such elaborate arrangements been made to provide extra services than this year. Already all stations are on the air at noon, and broadcast a schedule that is meeting with general approval. Primarily these increased hours are to provide facilities for the radio trades to demonstrate sets, but the general listening public are appreciating the extension. All this, of course, means extra time for the station staffs, but no one is complaining—it is Christmas time and allowances simply must be made.

On Christmas Eve all stations will be on the air till after midnight, the programmes being marked by gaiety and brightness. In the cases of 2YA and 3YA, Christmas Day will be ushered in to the broadcast of the midnight Mass from St. Gerard's Redemptorist Church, Wellington. The stations will be on the air continuously for over 12 hours.

On Christmas Day the stations go on the air in the morning, in the afternoon, and again in the evening, with special broadcasts, including appropriate church services. Early morning children's sessions, in which all the "aunts" and "uncles" will participate, will go on the air from all but



2YA, and at 10 a.m. 2YA will go with a special service conducted by Uncle George and assisted by Rev. W. R. Hibbert, who will give the address.

During Christmas afternoon an unusual broadcast will take place when the Hon. A. J. Stallworthy, Minister for Health, speaks from his home in Auckland and to officially open the radio installation in Porirua Mental Hospital. This broadcast will mark the culminating point of a very worthy effort that started a few months back and which has finally succeeded.

At the other stations special afternoon and evening sessions will be broadcast. There will be no children's or news sessions, but the evening programmes will start at 7 p.m. and will generally include a relay of a church service or other appropriate event.

During the Christmas season there will be some splendid broadcasts, especially from 2YA, where Clement May, the noted elocutionist, will produce with full effects Dickens's "Christmas Carol." Another item of interest will be the tours of Jock Lockhart, the 3YA Scottish comedian, and J. F. Montague, of Auckland. With these notabilities in the programme there should be something good coming over the air in the holidays.

Tracking "Pirates" in Orchard Pests Killed by Radio

A Novel Scheme

MOST countries are blessed with an uncomfortable number of radio pirates, and each seems to deal with this growing menace in a different manner. Some years ago a secret radio census was made in Germany by the municipal chimney sweepers, who through their occupation had access to every house and apartment in the city.

In Italy the pirates, according to official statistics, exceed the registered license holders by almost two to one, and the authorities are adopting a novel method of tracking the culprits. In all the larger cities the police have distributed special forms to the house porters, and a complete list of owners of wireless apparatus is being compiled. It is the porter's duty to fill in the printed questionnaire and to return it to the nearest post office.

ORCHARDISTS will be interested in a recent application of radio as an exterminator of insect pests in the orchard. The system has proved both efficient and practicable, and hours have been allocated by the American broadcasting authorities for "spray broadcasting" in orchards.

A series of aerial and earth wires is used, attached to a generator which furnishes 110,000 volt of high frequency electricity. The current travels from the aerial, which is stretched above each tree, through the trunk to the earth wires below, and back to the generating machine, thus completing the circuit.

Fruit growers and State inspectors who have tested the system thoroughly report that the current kills insect eggs, scale, and other fruit parasites by "exploding" the cells and sterilising them. Insects flying in the path of the current are also killed.

The inventor of the system is the late Dr. B. N. Burglund, who is credited with extensive researches in radio and high frequency electricity.

South African Broadcasting

Increased Fees

AS a result of the financially bad times, states the South African correspondent of "World Radio," that the African Broadcasting Company has experienced from the beginning, the Union Government has decided, as from September 1, to increase the scale of license fees for listeners outside the 50-mile radius.

Under the present zoning system the scale of fees per annum is as follows. Within 50 miles, £1/15/-; beyond 50 miles, but not exceeding 100 miles, £1 5/-; not exceeding 250 miles, 15/-; and beyond 250 miles, 7/6.

The new system abolishes the 50-mile radius and levies a fee of £1/15/- upon all listeners living within 100 miles of a broadcasting station. Between 100 miles and 250 miles the new fee will be £1/5/-, and outside the 250-mile radius listeners will have to pay £1 as against 7/6 at present.

The revised fees have been prompted largely as a result of the disappointing response from listeners in the Transvaal following the erection of the new high-power JB station, of 25 kw., at Johannesburg, a few years ago. A radius of 100 miles around Johannesburg, with higher fees over half the area, should result in considerably more revenue, but at Cape Town, where the vast majority of listeners live within 40 miles of the broadcasting station, and where any ring drawn round the city covers water for three-quarters of the distance, it is not expected that the increase in revenue will be nearly as great proportionately. And the position regarding the coastal town of Durban is similar.

The manager of the African Broadcasting Company, Mr. H. D. Adler, states that the fees existing up to the present have not been commensurate with the value of the entertainment provided by the three stations of the company. They have also not been of a sufficient level to cover the expenditure incurred in maintaining the stations and providing daily programmes.

He feels sure that listeners will appreciate the necessity for a slight increase in license fees. Mr. Adler expressed himself as "very sanguine" with regard to the future of broadcasting in South Africa.

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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, DECEMBER 19, 1930.

RADIO IN THESE DAYS

THE condition of primary markets in these days undoubtedly affects the outlook of the community. Prices are down, and the surplus usually available for luxury and entertainment is diminished. How is that affecting radio? Curiously enough, both in Australia and in New Zealand radio is not showing depression as extensively as other interests in the entertainment field. In point of fact, sales are being maintained at a satisfactory rate, and expansion recorded in the volume of listeners. The explanation lies in the fact that people must have entertainment. With less money available for entertainment, the public is compelled to get the best value for its expenditure. Under those conditions radio enters into its own. It gives a definitely better return for every pound spent than any other expenditure on amusement. Once an efficient receiving set is installed in a home, an extraordinary variety of entertainment and instruction is open to the listener. That is being recognised under the stress of circumstances; so that the curious experience is recorded of an expansion in radio being apparent as a definite outcome of general depression.

IN Australia the listener is being afforded an increasing range of selection. The B Class Stations—with their title now changed to that of Licensed Radio Stations—are increasing slightly in number, particularly in provincial centres, so that fresh areas of provincial listeners are being afforded local reception. In the cities of Sydney and Melbourne the number of B Class Stations, operating in the extensive hours covered by them, mean in effect that the listener at practically any time between the hours of 7 a.m. and 11 p.m. can secure suitable music or other entertainment from some station or other. These licensed radio stations are relying for their revenue upon the proceeds of direct and indirect advertising. The direct advertising is usually of a somewhat blatant character, and in our opinion will ultimately kill itself. The lure of sponsored programmes is much more subtle, and in that field, provided adequate restraint is shown by those responsible, a definite appeal can be made to the taste of the discriminating listener. Whether the benefit to be gained by the advertiser is in line with the cost of the service given

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THE MASTER VALVE

is another question, the answer to which can be determined only by individual experience.

WITH the total of licensed listeners now exceeding 60,000, the year now coming to a close can be credited with a definite advance. Criticism of the programmes given from the YA stations has not been silent. It is, however, to be recognised that the multitude of tastes to be satisfied imposes a herculean task upon programme organisation—a task so heavy as by its very nature to preclude the possibility of ever giving universal satisfaction. All that those responsible can hope to do is to attain a high average performance and give as high a degree of satisfaction as possible. Appreciation of the programmes calls as much for discrimination on the part of the listener as for enterprise on the part of the organiser. Properly appreciated and used with intelligence, the existing radio service from the stations gives a fair range of selection with much to meet all tastes. Advances will yet be made in the programme service. The next feature of definite interest toward which we are looking is the use of recorded overseas programmes. Private trials have already been given of early arrivals, and it is hoped that in the relatively near future all listeners will have the opportunity of hearing the first records in this field of enterprise, which is bound to be steadily developed as time goes on until radio listeners in the Dominion can have the privilege of hearing regularly the cream of overseas programmes. With that goal in sight expenditure upon radio, even in these days, proves itself more than ever adequately justified.

Just Too Soon

An Unfinished Oratorio

WHEN carrying out relays, broadcasting stations are often in doubt as to when a performance is actually concluded and when it is time to return to the studio. Such a case arose at the recent performance of Handel's "Messiah" by the Hutt Methodist Church Choir, when a broadcast on relay from the Hutt was carried out by 2YA. The choir had reached "The Hallelujah Chorus," and after its rendition there was a long silence. Those in charge at 2YA were under the impression that the choir's performance had concluded, and the station therefore closed down.

However, contrary to a common practice, the "Hallelujah" chorus was not the final of the oratorio, and listeners missed several choruses. To most listeners, of course, the oratorio would seem to have been complete, but lovers of this type of music regretted the curtailment.

One gentleman in Timaru, being under the impression that 2YA had de-

liberately applied the closure, sent in a strong protest. "Extended hours are given for jazz music, prize fights, etc., and this is no doubt satisfactory to a large number of listeners, but I think you would please many more if when good oratorio music is being broadcast the same privileges were extended to listeners as are to those above mentioned." The writer said he had a feeling of resentment at having missed part of a particularly fine performance.

In the course of an explanatory letter in reply to the correspondent, the general manager of the Broadcasting Company said that it is quite customary for the "Messiah" to be concluded with the "Hallelujah Chorus," and this practice is followed by many of the prominent societies in the Dominion. In point of fact the Royal Wellington Choral Union presented the "Messiah" on Saturday evening last and concluded their performance with this chorus.

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Noted Pianiste Goes Abroad

Loss to 3YA

MISS DOROTHY DAVIES, who has for the past three years been attached to the Broadcasting Company at Christchurch in the capacity of pianiste for the Christchurch Broadcasting Trio and as musical librarian, will leave for England in January to further her study of music. She intends to study



DOROTHY DAVIES.

under Harold Samuel, the great exponent of Bach, afterwards will go to the Continent.

Miss Davies is acknowledged to be a brilliant pianiste, both as a solo player and as an accompaniste. She attended the Sydney Conservatorium for four years, completing the whole course after winning the much-coveted Yvonne Charvin prize. Before leaving New Zealand Miss Davies had gained the degrees of A.T.C.L. and L.A.B. In Sydney the Conservatorium awarded her the Teachers' Diploma (T.D.S.C.). While at the Conservatorium she studied under Mr. Frank Hutchens and Mr. Lawrence Godfrey Smith.

Miss Davies will be succeeded as pianiste of the trio by Miss Aileen Warren, another exceptional musician, who was formerly associated with 3YA.



AILEEN WARREN.

Dickens' "Xmas Carol" from 2YA

By

Clement May and Company

COMPLETE with carol singers, chimes and incidental music, Charles Dickens's immortal "Christmas Carol" will be presented at 2YA on Tuesday, December 23. The producer will be Mr. Clement May, the eminent English actor-elocutionist, now resident in Wellington, and he has selected such a cast of characters that the success of the radio presentation of one of the most famous stories ever written is assured.

In other countries Mr. May has broadcast this "Christmas Carol" to the delight of all who have heard it. He himself will take the role of Scrooge. Mr. May, who is a much-travelled artist, has specialised in Dickens characters, and is acknowledged to be one of their finest exponents. His delineations are lifelike and true to the spirit in which the great master drew them. Lovers of Dickens will revel in this radio presentation of one of his most loved writings, so admirably in keeping with the spirit of Christmas. Could there be a better description than the following of the day which helped to redeem that old curmudgeon, Scrooge?

"... It was cold, bleak, biting weather, foggy withal. . . . The city clock had just gone three, it was quite dark already; it had not been light all day, and candles were flaring in the windows of the neighbouring offices, like ruddy smears on the palpable brown air. The fog came pouring in at every chink and keyhole, and was so dense without that although the court was of the narrowest, the houses opposite were mere phantoms. . . . It was piercing, searching, bitter cold."

The theme of "Christmas Carol" is Dickens in essence, for in it his love for humanity and his love of fun are all-embracing:

"Marley was dead! To begin with. . . . as dead as a doornail. Mind, I don't mean to say that I know of my own knowledge what there is particularly dead about a door-nail. I might have been inclined, myself, to regard a coffin-nail as the deadiest piece of ironmongery in the place. But the wisdom of our ancestors is in simile; and my unhallowed hand shall not disturb it, or the country'd be done for. You will therefore permit me to repeat emphatically that Marley was as dead as a door-nail."

Scrooge was just the sort of fellow who would resent anyone wishing him "a Merry Christmas," and would call it "all humbug." But in one night Scrooge's outlook on life changed completely, and when he arose on Christmas morning he was a regenerated character. The story is told in three scenes:

SCENE I.

The office of Scrooge and Marley—Time: Christmas Eve.

SCENE II.

The home of Scrooge—Time: Midnight. The Dream—The coming of Marley's Ghost.

Vision 1—Scrooge as a boy at school.

Vision 2—Scrooge's sweetheart.

Vision 3—Bob Cratchitt's Christmas party.

Vision 4—The news of the death of Scrooge.

Vision 5—Bob Cratchitt's home.

Vision 6—The home of Fred (Scrooge's nephew).

Vision 7—The Churchyard. The Reformation of Scrooge.

SCENE III.

The office of Scrooge and Marley. Christmas eve. The Carol Singers—The Chimes—and incidental music by the orchestra.

CAST OF CHARACTERS

(As they will be heard).

BOB CRATCHITT (Clerk to Scrooge) Mr. B. Cahill
MR. MIDDLEMARK Mr. John Storr
SCROOGE (the Miser) CLEMENT MAY
FRED (his nephew). Cedric Muir
THE GHOST OF MARLEY (a former partner of Scrooge) Errol Muir

VISIONARY CHARACTERS

SCROOGE as a Boy. Audrey May
FANNY (his sister). Eileen Bass
SCROOGE'S SWEETHEART. Margaret O'Halloran
MR. WORTHINGTON. E. H. Paterson
PETER (a boy). Robert Chyne
SCROOGE'S NIECE. Betty Day
MARTHA (Bob Cratchitt's daughter). Tui Hall
TINY TIM. Irene Nelson
MRS. CRATCHITT. Madge Thomas
BELINDA. Evelyn Goldsmith

Inter-Station Relays

Curtailment Necessary

A PLEASING feature of the broadcast service in the South Island has been the frequent interchange of programme between 4YA and 3YA, particularly on Saturday and Sunday evenings. This interchange has added considerably to the variety of talent which listeners to the respective stations can enjoy. The Post and Telegraph Department has hitherto placed every facility in the way of the Broadcasting Company and arranged for perfect relay lines, but of late the Department has found it necessary to curtail considerably these inter-relays owing to the fact that the prolonged use of the lines interferes with toll traffic.

Some time ago the Broadcasting Company was advised that a circuit would not be available for longer than one hour for the Saturday evening relays until after January, and that even then it might be necessary to review the position again should the use of the line cause any abnormal delay in the toll traffic.

Marconi Speaks on Radio

Heaviside Layer Theory

IN the course of a recent address before the Italian Society for the Progress of Science, Marchese Marconi urged radio engineers to keep in touch with meteorologists and astronomers, as co-operation in this way would be of considerable help.

Marconi expressed himself in favour of the theory that electric waves can travel beyond the Heaviside Layer, since such layer, or layers, were constantly penetrated by the sun's heat and light.

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Excellent Entries

Song-writing Competition

TWENTY-NINE musical settings for the prize poem in the song-writing competition promoted by the IYA Musical and Dramatic Committee have been received, and the judges, Dr. S. Kenneth Phillips, Mr. J. Tait and Mr. H. Hollingrake, have announced their award.

The winner has proved to be Mr. Eric Waters. In awarding the prize to him the decision of the three judges was unanimous.

Mr. Waters is a composer who has already "won his spurs" for

it was he who composed the music of the opera "Tutankamen," which created a furore when produced in Auckland. Besides this he has many other works to his credit.

As a musician, IYA listeners know Mr. Waters well as a piano soloist.

Eric Waters. He is pianist of the Orchestral Octet and of the Studio Trio.

The prize poem, the words of which have now been set to music, was written by Mr. W. Francis Chambers, of Wellington. In that competition there were 333 entries.

An Ingenious Scheme

For Conveying Messages

A YOUNG student working in London has, states an exchange, hit upon a novel method of informing his parents in Wessex that he was alive and well. On the day when a regular weekly outside broadcast was in progress, he took up his position as close as possible to the microphone and, during the silence which preceded the music, coughed loudly and with peculiar emphasis.

This signal reassures an anxious couple in the country who might, otherwise, be imagining that their boy had been shanghaied or led astray!

New Artists from IYA

ARTISTS who are to make their microphone debut from IYA during the next few weeks include Mr. J. Dagliesh, tenor, who will sing on December 30; Miss Robertson, contralto, January 8; Mr. A. G. McPhail, baritone, January 9; and a versatile combination known as the Zealandia Novelty Instrumental Quartet, who will play on January 10. Also on January 10 the new Savoy Male Quartet will be heard.

Radio Manufacture in Australia

Comparisons with N.Z. Industry

SOME interesting sidelights on Australian radio manufacturing were thrown by Mr. Wilkin, of the B.G.E., who spent a few days in New Zealand recently. "Set manufacture in Australia," he says, "just has to be, otherwise there would be no radio." A barrier absolutely prevents the entry of complete radio sets into Australia. Furthermore, there is a high tariff on imported parts so that the Australian who wants radio must make his own.

In various main cities large manufacturing concerns are now well established, and are making almost the whole of the radio goods used in Australia. A few parts are imported, but, as Australian plant is improving and increasing, these imports are becoming less. Five or six large manufacturing concerns are working now under high pressure to satisfy Australia's demands. One Australian factory is working now at the rate of 5000 radios a year, so it can be seen that radio manufacture has been speeded up to a great extent. Only recently an attempt was made to manufacture, or at least to assemble, valves in that country, but it has apparently not met with considerable success, as, for the time being at least, it is not being proceeded with.

Cheap Set Market.

The whole industry has grown within about three years. In the first place, American receivers came across and Australian engineers, making slight adjustments, decided that an Australian receiver would be a marketable proposition. The following year, what might be called the Australian editions of American receivers were turned out, but this year, with the complete embargo on imported receivers, the whole countenance of radio manufacture has changed. The Australian-made set is now quite different from the American.

Size of the Sets.

THE Australian-made set has four or five valves, usually two h.f., as this is all that is necessary to cope with the selectivity problem. Conditions over there are really different from either America or New Zealand. There is no call for a distance-getting set, as there is really no distance to be had. There are a very large number of stations in a relatively small area and each city has quite a few locals. The requirements of any set, then, is to bring in these main stations and differentiate between the locals and it has been found that the four or five-valve set will do this nicely.

"But do you not listen-in to America and New Zealand?" we asked.

"Not very much," replied our visitor. "American reception is very patchy and unsatisfactory, whereas the New Zealand stations are off the air before they can be well received, while there is practically nothing to the west. Thus you see that we have to rely on our own broadcasts. One rarely hears of a set picking up New Zealand stations, but 2YA comes in quite well in places. You go off the air

at about 8 o'clock or 9 o'clock our time."

Manufacturing in New Zealand.

MANUFACTURING in New Zealand is very much in the embryo stage, according to Mr. Wilkin, who took opportunity to visit most of the manufacturing firms.

"There is one case where you are miles ahead of Australia," Mr. Wilkin



J. J. FLEWELLYN,
the well-known 3YA elocutionist,
who will broadcast seasonal sketches
from Dickens.

—Steffano Webb, photo.

remarked, "and that is in power amplification and talking apparatus. I was in one factory in Auckland where the complete projector equipped with a sound system is turned out, and I was surprised at the remarkable accuracy with which every part was made. It was a creditable job and, I understand, about 30 theatres have already been equipped with this system. A Wellington firm has also equipped an almost equally large number of theatres, but of course these people do not make the projection apparatus as do the Auckland firm, who even make their own speakers from patterns designed by their own engineers. In Australia the sound picture industry is about where your radio industry is at the present time."

A Successful S.O.S.

ON a recent Sunday evening 4YA was asked to broadcast a message to find the whereabouts of a Timaru gentleman whose son had died and who was known to be somewhere in Otago. Within an hour of the announcement being broadcast, the gentleman called in at 4YA.

From all Angles

IN Palestine recently a radio expert attached to police headquarters accidentally stumbled across some signals in Russian code on a very high wavelength. By means of a frame aerial and a superheterodyne receiver mounted in a motor-car, cross-bearings on the mystery station were taken; and the latter thus located. During one night a squad of police rushed a disused warehouse and captured the astonished operator before he could send out an alarm. An installation comprising complete transmitting and receiving equipment was confiscated, together with sheaves of Soviet propaganda for inciting Arab disturbances.

ARRANGEMENTS are almost completed for the erection of a central high-power broadcasting station for the Irish Free State. It will be modelled on the lines of the new B.B.C. regional stations and, as it will have an aerial power of 60 k.w., it will be one of the most powerful stations in Europe. If it is found that the whole of the Irish Free State is not within crystal set range, the Government intend to remedy the defect by increasing the power by nearly one hundred per cent. The modern trend in Europe certainly seems to favour fewer and higher power stations.

THE latest system of centralised broadcasting is claimed to be that installed in a school at Fort Wayne, Indiana. It consists of a receiving set, an automatic gramophone, a microphone, and individual loudspeakers for each classroom. The studio is situated near the principal's office, and from there programmes are sent to all rooms in the school. The time usually consumed in assembling the students is saved by this device. Radio is becoming more and more popular in America and England, particularly in the rural schools, in bringing music appreciation, art, history lessons and special educational talks to the children.

THE following paragraph, taken from an American journal, affords a striking illustration of the efficiency of radio-equipped police squads when dealing with criminals. Two Chicago youths, Joseph Nagawewski and Lester Sybalski, established a record in their first attempt at crime recently. At 1.41 a.m. they attempted a robbery unsuccessfully. At 1.43 a.m. they were described to a roving police squad via radio. At 1.48 a.m. Nagawewski was shot twice in the back, and with Sybalski was captured by the officers.

Uncle Tom Retires

MR. T. T. GARLAND, who has been "Uncle Tom" at IYA for the past three years, has made his final appearance as an uncle before the IYA microphone. He has always been a great favourite with the children, and will be greatly missed.



The Radio Telephone Service to England

IT is announced by cable from London that the opening of the London-New Zealand telephone service is expected to take place on Friday, December 19. In a statement the secretary of the Post and Telegraph Department, Mr. G. McNamara, explains that the cabled date was only a tentative one. At the present time the transmission at Sydney was causing some trouble, and, although they had been able to get through once or twice, no definite date could be fixed until the service had given complete satisfaction. With a little luck they might be able to open the service at the date mentioned.

Radio with a Military Bias

REVOLUTION by radio was the nature, if not the title, of a programme which the Brazilian Government was giving listeners every day during the progress of the recent turmoil in that country.

Radio was for a while the only means of communication with some of the isolated districts, but finally everybody having wireless sets were encouraged to listen-in on the daily communiques. Citizens were also asked to assist in locating transmitting stations controlled by the opposition.

Radio News

TESTS recently made at the University of Minnesota in connection with the St. Paul broadcasting station KSTP have proved that students in college study better when listening to jazz music broadcasts. In the tests students were given mathematical problems to solve under different conditions. When a thrilling story was "on the air" they had difficulty in concentrating, but when dance music was played more problems were solved than when the room was quiet.

WHAT is claimed to be a record in quick frequency changes has been established by a New York station. Just after transmitting its morning news a few weeks ago on a wavelength of 200 metres, a letter arrived saying that the Federal Radio Commission had changed the station's wavelength to 333 metres. The engineers got busy, and the programme was well under way, on 333 metres, when a wire arrived: "Present wave-length a mistake. Change to 220 metres." Thus, when the station switched off that night it had had the distinction of changing its wavelength more times in one day than most stations do in all their lives!

A FEW days ago the British Postmaster-General, Professor Lees-Smith, remarked in the House of Commons that some months ago he instructed some Post Office officials to listen-in on wireless messages from Russia, and report concerning their nature. This was done, but the dispatches proved to be uninteresting and innocuous, and so listening-in was suspended. It appears, however, that lately the character of the messages has changed, and once more they are being watched.

The Mysteries of Short-Wave Listening

Educating the Listener

WE have recently received from Mr. Ivan O'Meara, of Gisborne, a copy of the International Short-wave Club's magazine, an American journal devoted to the interests of the short-wave amateur. As an illustration of the intense interest taken in this fascinating branch of radio it may be stated that though this magazine was inaugurated only a little over a year ago it has extended over the world in a phenomenal manner and now the membership covers 40 countries and possessions.

The issue to hand contains an illuminating article on short-wave listening, in particular on the seemingly inexplicable peculiarities encountered by the unenlightened listener on his first attempt in experimenting on the higher frequencies. These difficulties are often quite enough to discourage the beginner, with the result that he finally discards his set in disgust. It is in explaining these mysteries of short-wave listening that the following article will be of great assistance, either to those who are already in difficulties or to those who are contemplating taking up this comparatively new and different form of broadcast listening.

THE new short-wave broadcast listener invariably finds tuning a short-wave receiver different from tuning a broadcast receiver. Many heretofore unknown features on the broadcast band are common to the short-wave field. Some such things are fading, harmonics and skip-distance. Some say that bringing up such a matter is adverse to the growth in popularity in short-wave, but we feel that such matters should be discussed openly and thereby the listener will become educated to short-wave tuning, and by becoming educated will become a better listener and a more satisfied owner of a short-wave receiver.

"The short-wave field is just recovering from its first period of 'over-selling.' A few months ago the novice was taught to believe that all he needed to hear hundreds of overseas short-wave stations was to gather up all the old discarded junk around the home and wire it together in a haphazard fashion, and these stations would come rolling in.

"Hundreds, yes, thousands, of experimenters became discouraged over the results obtained and have ever since been decrying instead of 'boosting' short-waves. The present-day short-wave receiver is a marvel of efficiency—compact, well designed and built, and in every way equal to the broadcast receiver. However, the acquisition of a good receiver does not overcome the peculiarities of short-wave reception.

"Probably the first thing the beginner must learn is that stations do not cover a very large space on the dials. The short-wave field covers a band of frequency 25 times as large as the broadcast band. In other words, the stations on the broadcast band could be put into a space of 20 degrees on

the dials of a common short-wave receiver. To pick up a station properly the dial must be set exactly to the centre of the carrier wave. A dial may be set one-third of a degree away from a station and it cannot be heard, but if moved directly on the wave could bring in a good clear programme.

"The first requisite to successful tuning is therefore 'tune slowly.' Do not skim over the dials and expect the station to come rolling in. Instead, put your regeneration control up to where a slight hissing sound is heard in the speaker, denoting oscillation, and then keep it near this point while you slowly revolve the wavelength dial. If the hissing sound dies out, then turn the control up again. You will then locate the station by a whistle. After picking this up, then detune the regeneration until the music or voice is heard best. A little practice soon makes an expert on this.



MR. JAMES SIMSON,

Under whom the Dunedin Trinity Methodist Church Choir most acceptably rendered "The Morn of Glory" on Sunday last.

"The second noticeable peculiarity of short waves is that but a few stations can be heard at one time. Regardless of whether a certain station is on the air at a certain time or how much power it has, you may not be able to hear it. Certain stations can only be heard at certain times of the day, and certain seasons of the year, regardless of their schedule. Many foreign stations have never been heard in the United States. Short waves offer 24 hours of entertainment each day, once you learn to tune. It is not a fact that you can get better results at night than at daytime. It is possible that better reception may be had daytime.

"Broadcasting on short waves is confined mostly to four bands of frequency, although stations may be picked

A Bad Slip

World-famed Combination

THE ingloriousness of it... Some one has thought it prudent to comment on the "appearance" of the J. H. Squire octet at IYA. And they have gone into print with it too, which makes matters worse. Yes, this is what an Auckland weekly journal says about this happy event: "The J. H. Squire Celeste Octet provided two excellent numbers from IYA on Wednesday night last, and these were the gems of the programme. 'Trauma,' the first number presented, was rendered in a very able manner. The standard reached was good."

"The standard reached was good." A combination that has thrilled millions in England, and in fact over the world, thought to appear from IYA, is classed as good—and what about the other item—wasn't that so good? It is no use—they mustn't play those tunes again. Please ask IYA to send the record back.—Murray.

Sending Letters by Wire

THERE will shortly come into operation in England a public service of radiotelegraphy by means of which one may send by telegraph an entire sheet of type-written foolscap. It is telegraphed, not by wireless, but over the ordinary telegraph wires to its destination, and arrives there in exact facsimile. This system has been working for some time in other countries as part of their public service. As the charge is quite reasonably small, there should be a big future for the business of sending letters by wire.

Advertising in Bad Times

IT is easy in difficult times like the present to retrench a little in business, and save money, and advertising is one of the first things on which some business men save. That is because they do not realise that advertising is indispensable, said Mr. Gordon Selfridge, in an address to the British Glass Convention in England. Mr. Selfridge said that what some business men did not realise was that the public was ever changing. What they advertised to-day was forgotten to-morrow. They had to keep on advertising and giving the public the facts and particulars.

up at other points on the dials. These are from 14 to 18, 24 to 26, 30 to 32, and 48 to 50 metres. The beginner would do well to locate these bands and search them out before tuning over the other parts of the dials."

HAVE you renewed your subscription to the—

"Radio Record and Electric Home Journal"?

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

Looking on the Brighter Side

A Cheerful Correspondent

QUITE a number of New Zealand listeners are troubled with electrical interference, and it will probably be of some consolation to those unfortunate to learn that their fellow-listeners in many countries are much worse off in this respect. This is particularly the case in America, where the widespread use of electricity for every conceivable purpose is a serious drawback to trouble-free reception.

However, every problem has its lighter side, which in this case is well illustrated by the following amusing letter contained in a Canadian electrical journal:—

"Friend Joe,—

"You may not know it, but I reside on the north-east corner of Summer and Barret Streets, in a brick veneer house, comfortably mortgaged. The mortgage doesn't perturb me much, but a transformer on a pole south of my mortgage on Barret Street, causes me acute misery, not to mention unspeakable anguish. The transformer, I am informed and believe, is the property and corporate holding of a benevolent institution doing business under the name and style of — Southern You-tell-me-one Company, of which you are the local Big Gun.

"What I am getting at is that last evening, when radio reception all over the town was remarkably clear and pellucid, the disturbance which erupted from my all-electric set sounded like the patter of spring rain on a red-hot stove. The first selection on the Palm Olive Hour was like unto the Battle of the Marne, with effects. The effects were contributed, presumably, by the — Southern Interference Company, incorporated under the laws of —. The second number (introduced by Philipps Carlin, with staccato accompaniment) was a weird representation of Feeding Time in the Zoo. We distinctly heard the roar of the famished lions, the strident yelp of the hyenas and sibilant hissing of the boa constrictors, all furnished presumably by the — Static Disability Company, a corporation organised and persisting contrary to the statute in such case made and provided. The third number, I think, was Fun in the Foundry, with a stunning climax, representing the blowing up of the whole damn works, the falling of debris on tin roofs, the siren shrieks of the fire department and the agonised wails of dying foundrymen—all sound effects by the — Sputterin' Inferno Company, a conspiracy organised and operating on a frequency of 500,000 discontented kilowatts. At this point, we wrecked the radio, wrapped our ears in hot towels, and slunk to our couch like quarry slaves scourged to the dungeon.

"I think, Joe, your naughty little kilowatts are running around at night, wasting the kilowatt hours in ungodly revelry. They are badly trained; they think every night Hal-Hallowe'en, and go yelling around our block, necking and sparking, and making life miserable for staid householders. I know that kilowatts must have their fling but keep them in at nights and teach them some manners.

Popular Comedian to Broadcast

From All Stations

THERE are few entertainers who enjoy greater popularity than Jock Lockhart, the Scottish entertainer, whose mirth-making jokes and bright humour are features of the 3YA programmes. Those who have not heard him have missed one of the brightest spots of the programmes. But, of course, not every set can tune to the southern station, so the Broadcasting Company have made arrangements for Mr. Lockhart to appear from the northern stations and from 4YA during the Christmas season. While in Auckland he will appear at one of the municipal band concerts and so the northerners will be able to enjoy this versatile entertainer first hand. This particular



concert will be broadcast, but one needs to see this comedian to fully appreciate his art.

Mr. Lockhart is one of the most regular broadcasters at 3YA, where he takes part in sketches or in his distinctive type of monologue entertainments, humorous Scottish songs at the piano, with a rippling fire of humorous patter, much of it entirely original and topical. Letters received from all parts of New Zealand testify to the popularity of this entertainer.

Mr. Lockhart's tour is similar to that which he undertook last year, when his in-

clusion in the programmes of 1YA and 2YA met with great appreciation. His itinerary is as follows: 2YA, December 24 and 29; 1YA, December 26 and 27; 4YA, January 1 and 2.

Children's Sessions

AT 1YA.

Monday, December 22.—This Monday is not a silent day, so don't forget to tune in and listen to the Farmer's Boy's funny songs, and the rest of the fun.

Tuesday.—The pupils of Madame Humphrey-Steward will be singing choruses and Christmas carols, so be sure and join in the singing. Piano solos from Leonora.

Wednesday.—Christmas Eve—"Hang-up-your-stockings" session this evening, and many other good things.

Thursday.—Children's session at 9 a.m. instead of 5 p.m., so don't sleep too late and miss it. Everybody saying "Merry Christmas" to everybody. Christmas songs, Christmas stories, and a happy time altogether.

I am a patient man, but if I ever find one of your kilowatts pedalling around my screen-grid on his little kilocycle, I'm going to grab him and shake the brat until the sparks fly. I never killed a watt, but another night of torture like last and the — Stentorian Dynamic Dissonance Company, a corporation disorganised and existing under the laws of Gehenna, will be holding kilowatt obsequies.

Statically yours,

Book Lady, and Story Book Man will also be present.

Saturday.—We are to have to-night in the studio the excellent little orchestra which is conducted by Mr. Tanner. Little pupils from Miss Ivy Hoare's studio will provide pianoforte and vocal items. Spot loves violins, so if he knows about the orchestra he is sure to be there.

Sunday, December 28.—The Vivian Street Church of Christ Children's Choir will be the singers for this evening, and Uncle George will conduct the session.

AT 3YA.

Monday, December 22: To-night there is to be a Surprise Party for Aunt Pat, so we won't tell her anything about it. But Mr. Davies' choir boys have some fun in store and will begin this Christmas Week in the jolliest way.

Tuesday: An extra night of fun with Uncle Alf, Cousin Nell and all the little Nellies from St. Saviour's School. Songs, Christmas cheer, choruses and lovely Santa Claus stories.

Wednesday: Christmas Eve! Aunt Pat, Ladybird, Chuckle, Peterkin, Uncles Frank, Dick and John, with Cousin Margot having lots of fun in the Studio to-night. A "Visit to Father Christmas's Toyland" with songs you all can join in.

Thursday, Christmas Day: At 9 o'clock Santa arrives at the studio; and we greet him. Then we are to have a special Christmas story, and some carols by the young Welsh singers.

Friday, Boxing Day: Uncle Frank is here to-night with some good songs and stories to tell, and White Fang too will be here. Nola Swindell will provide you with some pretty music.

Saturday: Aunt Pat and Uncle Charlie have a lot of interesting stories and songs for you at the end of this jolly week—so just listen-in and join in with this cheerful hour.

Sunday: The Children's Song Service will be conducted by the Presbyterian Sunday School to-night.

A Novel Burglar Alarm

A MICROPHONE has been installed in a Chicago bank vault as a burglar alarm, and is connected to the nearest police station. It is smaller than those used in broadcasting, but so sensitive that the slightest noise causes it to function. It is expected to prove useful in case someone is accidentally locked in the vault, as well as in the event of attempted robbery.

If You want to get Ahead

—the International Correspondence Schools can help you do it, no matter how small your capital may be, or how limited your education.

One hour a day of spare time, spent with the I.C.S. in the quiet of your home, will train you for the position you want, in the work you like best. Put it up to us to prove it!

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HUNDREDS OF COURSES TO CHOOSE FROM.

The International Correspondence Schools (N.Z.) Ltd.

1822 WAKEFIELD ST., WELLINGTON

Friday.—Nod and Aunt Jean making the hour a happy one with stories, jokes, and songs.

Saturday.—Cinderella in charge, and who do you think to help her? Well, never mind, we'll keep it a surprise for the girls and boys.

Sunday.—Children's Song Service conducted by Uncle Bert.

AT 2YA.

Monday, December 22.—Uncle Jeff has another new puzzle for to-night. Cousin Claude and the Kipling Lady will also be here with their stories, and the little pupils of Miss Lottie Rastall are bringing a delightful programme.

Tuesday.—Uncle Toby and Jumbo have promised us a most entertaining programme, and they will have in the studio Miss FitzGerald's pupils, who are bringing songs, recitations and pianoforte items. The Milly-Molly-Mandy Lady will also be here.

Wednesday.—Christmas Eve! A Merry Christmas to you all! We are to have a Christmas party to-night, and the little pupils of Isobel Halligan will present a special little play called "A Christmas Tree Joke."

Friday.—Cousin Vermont will celebrate Boxing Night with his bird and animal imitations. Uncle Jim, Story

When Your Set Stops

Look for the Cause

Don't Go Without Music



ALTHOUGH the title of my talk may sound somewhat foreboding, I would like to assure listeners right from the onset that I am not going into technicalities. I know perfectly well that grid-leaks and by-pass condensers and oscillations and regeneration are frightfully confusing to the average listener who wants merely to turn a switch and listen-in. But although radio is so simple there are yet many things that can go wrong, and the listener himself can attend to without calling in a service man.

The natural starting-point for such a discussion is when the set does not start when it is turned on. Now there are very many different classes of "silences," as we might term the fault, and you must first determine which kind it is. If there is no light behind the dial and no humming in the speaker, the electricity is not getting to your set. Turn on your light switch, and if your lamps do not light you will know the trouble is not in your radio. If they do, then one of two things has happened—either your fuse has been blown out, or something is not making contact. To test if it is the fuse—fit some other electrical device into the socket and see if it goes. In this manner you can soon find out if the trouble is readily apparent.

Now we will suppose that the dial light showed when the set was switched on, but there was no hum or live sound. This means that either one of your valves has gone, or that the rectifying valve is not functioning. The rectifying valve is the one which has two plates, and what appears to be two filaments. See if this is lighting, and if it is not it must be replaced.

If this is in order, then remove the shield from the valves, and see if they are all lighting. If everything appears normal you cannot do very much more than call in a serviceman. Please remember that you must not take on anything more than superficial examination yourself. Listeners should not attempt to make inside adjustments to their radios, for not only are they likely to get a very severe shock, but the regulations will not allow any unlicensed to interfere with an electric set. You can quite safely touch any metal part of the set when it is in operation, providing all the shields are in position, so do not be afraid to interfere with the aerial or the earth.

Many people do not take sufficient care to see that their aerial and earth are in good condition before contacting a dealer and asking him to examine the set. I know of cases where a dealer has had to go many miles to turn on a switch. It is the easiest thing in the world to see that aerial and earth are connected and that they are not touching anything they shouldn't touch.

A Synopsis of what

Colin W. Smith

told 2YA Listeners

Much that I have said for the electric set can be said for the battery set, but the main causes of trouble are the batteries. They run flat fairly quickly and although a set may be going reasonably well one night it can refuse to go when turned on the next just because the batteries are in poor condition. Many will notice that when the battery set is turned on it goes satisfactorily for a while and then drops rapidly. This is because the rest has allowed the battery to somewhat recuperate, but it is nevertheless quite done. Another common fault are the connections left off, or put on

wrongly, while the separate speaker is not past giving trouble. Transformers are not as much trouble as they are supposed to be and they are often renewed when they are quite good.

If you have a lightning arrester of the cheaper type and have this installed outside, then it can quite easily cause trouble by allowing the water to seep through and cause a bridge between aerial and earth.

Weak Signals.

THE next cause of dissatisfaction in a radio set is weakness. In the modern a.c. set this is usually due

either to a fault developing in the aerial or the earth systems or a defective valve, usually the screen grid. This type of valve is a highly complicated piece of mechanism and is not without weaknesses. It is not a bad plan to have an extra one on hand and if the set suddenly becomes weak to try it in the position of each of the valves to see if it will improve matters.

When valves have been in operation for about 1500 to 2000 hours, I am speaking now of the modern valve, they begin to weaken and the entire set should be replaced. Now you will be surprised how quickly 2000 hours can run away. Just count up the number of hours you keep your radio set going each week, and I am quite certain you will be surprised. When replacing valves it is not always necessary to use the same make of valves as before. We must all admit that some valves are better than others and it is not a wise plan to buy cheap valves thinking you are getting a good deal. You are not; you are getting a decidedly bad one, for not only do cheap valves have a short life, but they are what we call patchy; that is, minor defects show up in them and they unbalance the set. Just inquire from your dealer what he considers the best makes before making any replacements.

The same is true for the battery set. Almost every year sees the introduction of new valves, that will probably suit your set quite well, and you should inquire either from a dealer or from someone who is conversant with these matters before replacing.

Of course there are other causes of weak signals than valves, and I could talk for quite a long time about unbalanced circuits, grid-leaks and condensers, transformers, by-pass condensers and such like, for all these can very easily affect the volume of reception, but I know most of my listeners are not interested in such technicalities and I have no intention of stressing them. Anyone who is interested enough to want to delve into his set should drop me a note.

I do not want to stress unduly the aerial and the earth because I have said quite enough about that already, but I think most folk will realise that this can be a very strong factor in deciding whether your signals will be strong or weak. For those who use battery sets, too great a filament voltage is as bad as too little.

Distortion.

ONE of the most annoying troubles in these refined days is distortion. I mean by distortion that the sounds you receive are being made very different from the natural sounds.

Probably most listeners when they first buy a powerful set wonder why they cannot get the local station well. They find that when they turn the volume down the quality is very poor

Popular Radio Producer on Tour

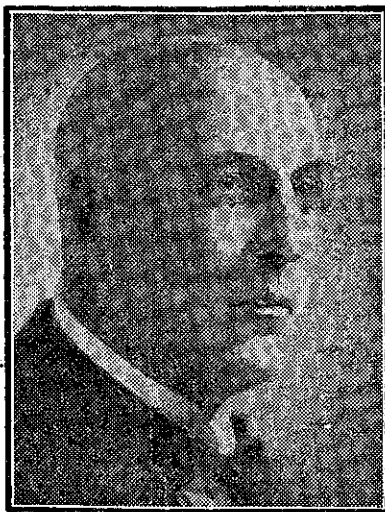
To Appear from Three Southern Stations

MR. J. F. MONTAGUE, of Auckland, fore the microphone.

who will broadcast from the three southern stations—2YA, 3YA, and 4YA—during January, desires us to broadcast a message to his many known and unknown friends on the air.

"I am looking forward with unfeigned pleasure to my visit to the south, and I desire to express my thanks to the Broadcasting Company for affording me the opportunity of speaking to such vast audiences, from many of whom I have received messages of thanks and encouragement in the past. I do not know, of course, what other artists may think, but for my part, I always consider I am greatly privileged in being permitted to speak be-

"I have taken great pains to arrange my items so that they may appeal to the greatest number of listeners—there will be something for every taste, I hope. Farical comedy, light comedy, dramatic scenes and sketches, selections from Shakespeare and other classics, and one Maori scene—'The Battle of Orakau'—will be presented. I hope to produce at Dunedin the great tragic sea story 'Galapagos,' with its wonderful musical numbers. Among my selections will be several never before given



on the air, and some 'old friends' in a new dress. Ladies and gentlemen, my respectful greetings to you. I hope that I may give you pleasure."

indeed. This is to be expected because we have not yet a perfect volume control and after it gets past a certain point the incoming wave is distorted. Endeavour should be made to work the set with this volume control on as far as possible, but this is impossible on the local station, and the easiest way I have found to get over the trouble is to take the aerial off. Some sets are made with a switch so that the aerial can be cut off without any difficulty. Please do not imagine that by cutting out at this switch you are properly removing the aerial. You are not, and if you take the aerial right away from your

set you will notice a decided drop in the volume.

Another interesting point about the volume control is that when a certain point is reached the signals actually become weaker than they were previously. Do not let this worry you, as it only indicates that the volume is at a point where the valves are choked.

There is another cause of distortion on an a.c. set that is readily under the control of the listener, and that is failure to tune to the loudest point. With some stations you can get enough volume without tuning to the loudest point, but you are not getting true reproduction like this. The best way is

to turn volume very low and then work the tuning dial, and then, if there is one, the balancing condenser, until the signal is at its loudest point, then advance the volume control until the desired output is obtained. Far too many people just carelessly tune to a station and leave it at that.

These are about the only sources of trouble that comes to my mind when talking about a.c. sets. If there is anything else you should consult your service man.

Distortion in the Battery Set.

WITH the battery set there are very many other places where distortion can take place. There are still a very large number of four and five valve sets whose valves are all alike. This means they are not using a power valve and consequently cannot receive true music and speech. Look at your valves and, if they are all the same, then you are not getting the best out of your set. The type of power valve depends on the number of valves in the set, but for five or six valves you want a power valve of the 171A type. I think all manufacturers make this type, so you should have no difficulty in getting one to suit your conditions.

Smaller sets require a high gain power valve. Of these there are some excellent examples and some amplify the signal as much as do the ordinary valve in your set but they can handle quite a fair volume without distortion. Do not think that a power valve is going to increase the loudness of your set. If anything, it will drop it, but it will better the tone.

Just as essential as the power valve is the "C" or grid bias battery. I have mentioned that before and cannot stop now to say anything further about it. If you have a set with four or more valves a bias battery is essential for saving current, increasing the life of your valve, and giving you better tone.

The speaker being the last link in the chain between the artist and yourself is often blamed for distortion that is not due to it; but it is frequently responsible for a great deal. Old-fashioned speakers, although they might be connected to a good set, cannot give satisfaction, and if you want real quality you must go to the newer types such as the heavy cones or the dynamos. The horn speaker itself introduces considerable distortion, and it cannot handle much volume without causing trouble.

There are other points which could enter into distortion in a battery set. For instance, the detector, if of the grid-leak type, cannot receive very loud signals without causing trouble. Then again small transformers will not pass the required range of notes, while some of the more selective circuits cut out some of the notes before they get to the detector. But we cannot dwell on these points, and must, before we stop to-night, consider a further cause of trouble.

Power Interference.

ONE of the most annoying features about any radio set, particularly those used in the towns, is the noise pick up. Power lines, tram rails, electric appliances, all send out waves that the radio set picks up and amplifies. Out in the country farm plants and milking machines are quite capable of spoiling reception. If you know from where the trouble is coming, arrange to have the aerial at right angles to it and as far away as possible. You might even get better results by chang-

ing your ground connection, by improving the ground, by a shorter aerial, or by a counterpoise earth. This latter is merely another aerial hung a few feet from the ground and connected with the ground terminal of your radio. It must in no way come in contact with the true earth.

Almost without exception the Post Office inspectors and the power boards are only too willing to help you to overcome these problems, and they much appreciate it if you can help them in locating the trouble. If you see a street lamp flashing on and off or see sparks from any of the insulators on the power lines during wet weather you can be fairly well assured that trouble is coming from them; and if you let the radio inspector know something will be done for you. A little help in this direction is greatly appreciated by the authorities. Do not get power interference and static confused. Particularly at this time of the year static is beginning to make itself a nuisance.

Broadcasting Gramophone Recordings

Indistinguishable from Live Artists

ONE of the German broadcasting stations recently conducted an experiment which provides material for reflection by all those concerned in conducting broadcast entertainment. A mixed programme of gramophone music and items by studio artists was arranged, and listeners were asked to distinguish between the two types of transmission. Of 16,274 listeners who sent in their opinions, only 52 were able to distinguish correctly between the transmissions, all the remainder having failed to sort out consistently the items reproduced from records from those by living artists.

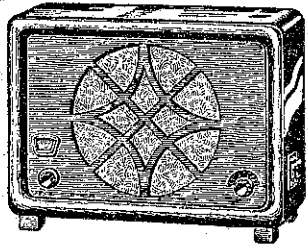
It is possible that the majority of listeners would often prefer a gramophone record performance by first-class musicians to a first-hand rendering by poorly-qualified amateurs. In addition, records are much cheaper, and if more utilised more money would be available for securing better artists for other forms of entertainment.

Spoke Too Soon

Editor in Trouble

RECENTLY the editor of a wireless journal in Morocco drew the attention of his readers to the faulty enunciation of the lady announcer at the local station. The speaker in question happened to be the wife of the station director, and the latter was forthwith commissioned by his better half to seek immediate redress.

He met the editor seated outside a cafe on the main street and, without seeking any explanation, kicked him, slapped his face, pulled his nose and generally gave him to understand that criticism in future would be considered unwelcome. The episode ended before the local magistrate, who inflicted fines all round, but, according to a French newspaper, honour was satisfied.



**Xmas Price for
the BLUE SPOT
RADIO SET IS
£15/-/-**

The Blue Spot radio set will come to your home complete in a French polished hardwood case, with built-in 66K speaker—more than one million of which are playing in the world to-day—it is a 3-valve district receiver with terminals for a pickup, if you wish to play gramophone records electrically. With good aerial and position many distant stations may be tuned in with the three click-over wave bands.

SOLD BY LICENSED RADIO DEALERS

FACTORY REPRESENTATIVES

SCOTT & HOLLADAY Ltd.

CIVIC CHAMBERS, WELLINGTON.

Wellington Distributors:

ELECTRIC LAMP HOUSE LTD.

MANNERS ST., WELLINGTON.

Our D.X. Club

Addresses and Addresses
Wanted

J. C. (New Plymouth): W6CLE, R. La Rue, Route 10, Box 217, Phoenix, Arizona. W6CME, R. Montague, 15 Dormidera Street, Piedmont, California. W9AJQ, Orvel Lemond, Duff, Indiana.

Stations Identified

IN reply to "B.W." Stratford, and others, the "mystery" station which you have been hearing lately is the new Gisborne "B" class station, owned and operated by Mr. C. T. C. Hands, radio dealer, 217 Gladstone Road. His wave-length is in the neighbourhood of 220 metres (1360 k.c.), and his call is 2ZJ. I don't know his working hours for certain, but I believe he can be heard from 2.30 p.m. - 4.00 p.m. any afternoon, and on Friday evenings from 7-10 p.m.

Identification Wanted

ON December 12 at 8.40 p.m. heard two stations heterodyning. One was 2UE. Could anyone identify the other?—"Yankee" (New Plymouth).

DX Topics

American News.

"BOB" (Wellington): I have cards from both KBX and KGA. The latter comes in with good volume, but surges badly. "D.N.A." (Timaru): There are certain letters of the alphabet that sound very much alike over the air. J and K are examples. IZJ is the call you heard. I hold a verification from them. Re reception of WENR. On dials marked in kilocycles they would be heard above 2BL, and on dials marked 0-100 below. I received them on 34 and 2BL 35. My latest "Ekko" stamp is from KFSG Los Angeles, 1120 kc. (268 metres). They broadcast from the Los Angeles Tabernacle. I expect a reply from VUR Rangoon any day now.—M.B.S. (Palmerston N.)

KNOW the time all over the world with a

DX Clock.

Printed on Heavy White Paper.
Posted in Cardboard Tube.
9d. Each.

A Boon and Companion it will prove to be throughout the coming Year.

MACKS' FAMOUS
ADD-A-PHONE

Its small size permits you to carry it with you on your holidays

WHEREVER YOU MAY GO

And always prove

AN EFFICIENT LITTLE SET
WITH A WORLD-WIDE
RADIUS

For Reception.

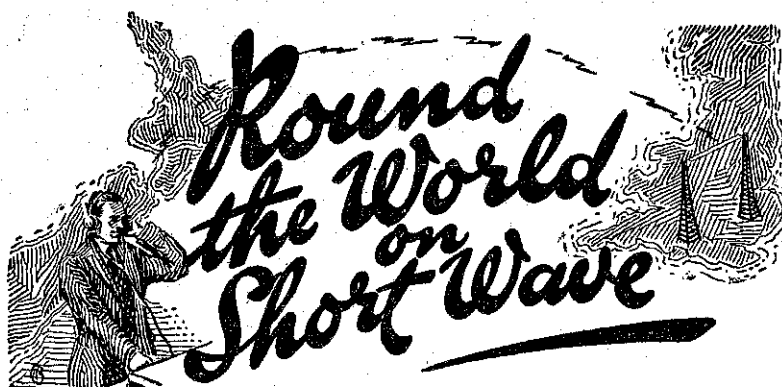
Yes Sir!

It's New Zealand-made—that makes you.

So Wire, Write, Ring or Call

MACK'S RADIO
SERVICE,

76-77 Kent Terrace, Wellington.
Phone 23-448.



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

Short-wave News

3RO, Rome, Changes Wavelength.

THE short-wave station of Prato Smeraldo, after a short period of transmission on 25.4 metres, returned on October 28 to the 80-metre wavelength.

The 25.4 metre transmissions have been well received in distant countries, but listeners to the station in countries less remote have complained that they have been deprived of the programmes to which they have grown accustomed. The E.I.A.R. have, therefore, decided to return to the higher wavelength.

Broadcasts for the Far North.

STATION KDKA, Pittsburgh, has begun its eighth series of annual broadcasts for the benefit of mounted police and traders in the north-west territory of Canada. They are also intended for the missionaries among the Eskimos, including a station within 10½ degrees of the Pole, where they report excellent reception. The transmissions begin at about 11 p.m. and include music, talks and personal messages to listeners. These special broadcasts are heard in New Zealand from about 4 p.m. on Sunday, from the 48.86 metre transmitter of KDKA.

More News from NRH.

ANOTHER letter has recently been received from the owner-operator of little NRH, Costa Rica. Referring to a book he is writing about his station he says:—

"The New Zealand chapter will be a fine addition, as many fans from there have sent me about 20 view folders with literature, several newspaper cuttings, postcards, maps, and their good letters. Thus I will have to revise my chapter and make it up to date. It really has been an extraordinary work to have a feeble 7½ watts reach you down there, even if but a whisper.

"When the season changes I will advise you for a special test programme, which I will work so that you can hear it by night time, now that I know where to stand in your reception."

A photograph was also received of the "Short-wave" section of the "Radio Record" dated May 23, which contained a report of reception from NRH. This photo is to appear in the book "Me and Little NRH," by Amando Cespedes Marin.

Reception During the Week.

EARLY morning reception is still bad with the old favourites, but is still interesting, as other stations are to be heard. Either W9XF or another on the same wavelength, 49.83 metres, is just audible for a while about 6 a.m. A foreigner on about 46 metres has been heard several times; Moscow, on about 45.4 metres, is quite good, while on the shorter wavelengths WSXK, XDA and W2XAD are to be heard before breakfast.

Log for Week Ending
December 13

RU15, Siberia, 70 metres.—Can always be depended upon for plenty of volume. An Australian short-wave writer states that this Russian has not been heard over there lately.

W9XF, Chicago, 49.33 metres.—Still fair volume till 7 p.m., also early morning from about 6 a.m., but too weak to be readable.

W9XAA, Chicago, 49.34 metres.—Another international programme was received on Sunday from this "Federation of Labour" station. The programme was arranged by the International Short Wave Club of Klondyke, Ohio. Volume reached R9 by 7 p.m. and remained at that till after 7.30 p.m., but static, being very bad, spoilt reception.

W3XAL, Boundbrook, New Jersey, 49.18 metres.—Very good each evening till 6 p.m. at maximum volume.

W2XE, New York, 49.02 metres.—Sunday, up to R8 by 5.30 p.m.; spoilt by static.

Radio Saigon, 49 Metres.—On Wednesday, at 6.15 a.m., a band came through at wonderful volume. Later they called, "Hullo, Paree, ici Radio Saigon." Volume was down to R7 at 7.30 a.m.

W8XK, Pittsburgh, 48.86 metres.—The usual programme for the Far North was heard on Sunday; R6 at 4.45 p.m. to R8 by 5.30 p.m.

K1XR, Manila, 48.86 metres.—Good volume each evening—except Monday, from 10 p.m. Static has been very bad.

HRB, Zegucigalpa, Honduras, 48.62 metres.—Sunday, reached R8 by 5 p.m., but modulation very bad.

VE9CL and CJRW., Winnipeg, 48.5 metres.—Heard again on Wednesday.

Tuned in at 6 p.m. at R4, when they gave the time as 11 p.m. Odd words only were readable. The call given was "CJRW and short-wave station VE9CL." They signed off at 6.5 p.m. Their latest schedule gives the hours of broadcasting as "Daily from 11 a.m. till 1 p.m., N.Z. summer time," so this is apparently an extra late transmission.

46 Metres (About).—Wednesday, Thursday, and Saturday mornings, for short periods, music and talk in a foreign language has been heard between 6 a.m. and 7 a.m. On Thursday at 6.25 a.m. several "Hullos" were called with a call like "3TC." This call was only given once, and am not certain I have it right.

Moscow (?), 45.5 Metres (About).—Each morning till 6.30 a.m. at R8-9. On again later much weaker.

VK3ME, Melbourne, 31.55 Metres.—Saturday evening another test programme. Volume R9, with one audio, but quality not up to standard, modulation being rough at times and a strong generator hum.

W2XAF, Schenectady, 31.48 Metres.—Sunday till 4.2 p.m., when they signed off after reaching R6. On Saturday the boxing contest for the featherweight championship of the world was relayed. At 3.45 p.m. 2XAF were R5, with the description about 50 per cent. readable. By the time the fight concluded at 4.12 p.m. volume had increased and every word could be heard.

Zeesen, Germany, 31.38 Metres.—Tuesday was the only morning that this station was any good, when at 6.15 a.m. they were fine at R8, but weak and gushy by 7.30 a.m.

W1XAZ, Springfield, Mass, 31.35 Metres.—Sunday and Saturday afternoons, best at 4.30 p.m., at R7. Thursday at 10.30 p.m., either this station or W2XAF was heard at R6, closing down at 10.37 p.m. Static was too bad to be sure of call.

PCJ, Eindhoven, Holland, 31.28 Metres.—Saturday morning only. The carrier was very strong, but only weak talk and music, about 10 per cent. readable.

5SW, Chelmsford, England, 25.53 Metres.—Only heard one morning this week, on Saturday at R7, at 7 a.m., increasing to R8 by 7.30 a.m., but too gushy to be readable.

W8XK, Pittsburgh, 25.53 Metres.—Each morning, but very weak except Tuesday, when they were up to R5 by 7.30 a.m.

K1XR, Manila, 24.4 Metres.—Friday, 10 p.m., R9, static very bad. ZLW is too near this wave-length to hear Manila when ZLW is working.

FTN, Paris, 24.46 Metres.—Duplex with Rabat every evening from 10 o'clock.

Rabat, Morocco, 24 Metres.—Duplex with RTN. Both stations always very clear and loud.

WML, Transatlantic Phone Station, 20.5 Metres.—Monday at 6.30 a.m. talking to London, R8-9.

XDA, Mexico, 20.5 Metres.—Thursday, Friday, and Saturday, from about 7.40 a.m., R5, all foreign talk.

W2XAD, Schenectady, 19.5 Metres.—Each morning, but too weak to hear all that is said. They are on from 6 a.m. till 8 a.m.

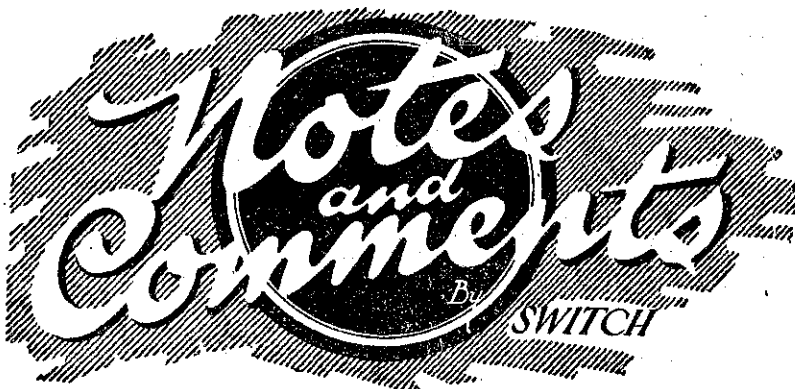
KNOW the time all over the world with a

DX Clock. 9d. each.

ON December 14, 7ZL, Hobart, which incidentally is heard fairly well on occasions after 10 p.m. in Wellington, passed under the control of the Australian Broadcasting Company. No advertising matter, either direct or indirect, is now put on the air from this station. The number of licensed listeners in Tasmania now total 7600, and, despite the general depression, have increased greatly during the past year.

"MAC" (Newtown) writes to describe how he ascertained the relative amount of electricity consumed by his a.c. set, electric radiator, toaster, iron, and main house-lights. In his electric meter there is a revolving drum, and by counting the number of times it revolved per minute when each of his electric appliances was being tested for current consumption, he found that his radio set consumed only a small fraction of current as compared with each appliance. He has calculated that his radio set costs him only 3/- per month for electricity, although he listens in about five hours daily.

THE falling-off in volume of the Melbourne stations, 3LO and 3AR, was again apparent during the past week. The Sydney stations have been well up to standard, but 4QG, Brisbane, has lost its old-time clarity, being subject to frequent cycles of distortion and fading. The season and weather for this time of the year has been most exceptional, and until the normal type of summer weather sets in, all kinds of reception vagaries may be expected.



THE boxing relays through 2BL, Sydney, as heard by Wellington listeners, call for comment. The most important moments in these relays are consistently distorted and weak, as though someone were listening-in on the relay line. This was strikingly exemplified on a recent Saturday night when the speech from the Stadium ringside was particularly weak a moment prior to the switching back to the 2BL studio. The instant the announcer spoke from the studio, however, his voice rang loudly and clearly. Not three seconds elapsed in the change from one voice to the other. Trouble on the relay line itself, of course, may account for the peculiarity, but it seems more than a coincidence that reception falls off when anything important happens.

A LAND agent whom "Switch" numbers among his acquaintances told the writer recently that he missed the

sale of a house recently because the prospective buyer found that the property did not permit of the erection of a satisfactory radio aerial. The buyer finally secured another property from another land agent, which, although not such a "bargain," afforded facilities for an excellent aerial.

THE above reminds "Switch" of a case which occurred some time ago when a Wellington resident sold his house and moved to another locality because there was so much interference from passing trams and local electrical noises. The purchaser of his first house was not a radio "fan," but a year later he joined the happy multi-

Australian Stations Reception Table for

FOR the guidance of those who wish to check their reception of the Australian stations, "Switch" prepares weekly a table showing the average relative strength with which he has obtained reception at 11.30 p.m. during the past week. The figures are relative and there is at least 40 per cent. drop since the winter.

2FC, Sydney	10
2BL, Sydney	9½
4QG, Brisbane	7½
2GB, Sydney	7½
3LO, Melbourne	5
2UE, Sydney	4½
3AR, Melbourne	3½
3UZ, Melbourne	2½
3DB, Melbourne	3
7ZL, Hobart	2
5CL, Adelaide	2
6WF, Perth	1½
2KY, Sydney	1½

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

tude of listeners, and then he realised what was wrong with his property "snip."

ALL this suggests that radio listeners, before purchasing a house, will some day obtain the services of a radio-trician to test the locality as to its possibilities for good broadcast reception. Some areas in Wellington are badly infested with continuous interference from electrical noises, and as they persist continuously, night and day, the sale of sets for "outside" reception in these areas is impossible. This is a matter which "Switch" commends to the radio trade for immediate action.

ON some nights recently the Japanese station JOHK, Sendai, has been coming in with unprecedented volume, although static was fairly lively. The fading, too, was only slight. A violin and pianoforte item was announced, and the English word "violin" was used, but the equivalent in Japanese for "pianoforte" sounded nothing like English. The item was European, and was of a semi-classical nature. "Switch" learnt through an interpreter that it was played by Japanese performers.

"SWITCH" notices in last week's "Record" that "D.N.A." (Timaru) mentions hearing a New Zealand B class station broadcasting for a considerable time without giving the call sign. This endorses a complaint recently received by "Switch" from another listener that there is non-observance of the radio regulations concerning the giving of call signs.

DURING Christmas the "YA" stations are giving us abundant music, commencing as they do at noon each day and remaining on the air till late at night. The radio traders have ample opportunity of demonstrating their sets, and holiday-makers within range of the "YA" stations can enjoy many hours of entertainment daily.

A WELLINGTON listener demonstrated to "Switch" recently the advantage of keeping an old-fashioned horn type of loudspeaker, with an adjustable diaphragm, in addition to his moving-coil electro-dynamic speaker. He found that the horn-type loudspeaker could have its diaphragm so finely adjusted that he could hear speech from distant stations far more clearly than on his less sensitive electro-dynamic.

SOME broadcast commentators appear to have only an elementary idea of their duties. The man describing the motor-cycle racing at the Wentworth dirt track, Sydney, heard through 2BL, Sydney recently, gave the colours worn by each rider in every race! There were other more desirable particulars which he omitted, but he seemingly thought the colours worn by each rider were an essential consideration.

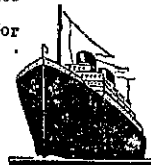
**NO UNEMPLOYMENT
IN THIS CAREER!**

There's remunerative employment waiting for qualified wireless men on shore and ship. Johnson's Wireless School takes you up to 1st or 2nd Certificate Examination Standard by easy progressive stages. Write for particulars.

Day and night classes for Proficiency Certificates. Correspondence classes for Proficiency Certificates. Correspondence classes for Amateurs and others.

JOHNSON'S WIRELESS SCHOOL

St. George's Buildings,
8-10 Brandon Street,
Wellington.



MUSIC sounds better through CeCo VALVES



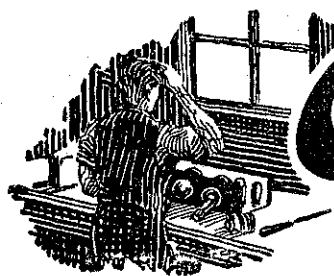
THE zum-zum of the big bass viol, the shrill treble of the tiny piccolo and the stirring blare of the brass are all blended into a beautiful tone picture by the waves of the conductor's baton. To receive these harmonies in all their original richness of quality and tone—use CeCo Valves.

We give every CeCo Valve 64 tests to make sure that they will bring to your loud speaker the true tones exactly as they are broadcast. Try a complete set of CeCo Valves in your set and hear the difference in clarity, and tone quality immediately. CeCo Valves have longer life.

CeCo RADIO VALVES

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

G4-QP



Questions and Answers



C.H.G. (Oamaru): I have a four-valve B.D. using G.P. and a B605 power valve. What is the drain on my "B" battery?—21 mamps. if properly biased.

2. What should be the life of my "B" battery? The set is in use on an average of three hours daily.—Six to nine months.

3. Would a Philips A630 be all right in the radio stage?

A.: Yes, but it may cause instability.

4. Will future B.D. articles include a triode as well as a screen-grid circuit?

A.: The former has often been published already.

N.Z.'S OWN RADIO BOOKSHOP

The **TE ARO BOOK DEPOT**, Wellington.

At Last We Have It.—"Wireless, the Modern Magic Carpet," 4/9 posted. Simple language anyone can follow.

"Handy's Handbook," 7th edition. 5/3 posted.

"Theory of Radio Communication," by Filgate, 12/-.
"Collins' Wireless Diary, 1931," 4/- posted (Amateurs and Broadcasters—150 pages useful information).

"Radio Trouble Finder," 1/10.
(Published by "Radio News" Co.)

"Radio Amateur Call Book," Sept, 1930, 5/3.
"Projection Engineering"—a monthly, 21/- per annum.

"Elements of Radio Communication," by Morecroft, 19/-.
"Thermionic Vacuum Tube," by Van der Bijl, 26/-.

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

"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. Listeners' Guide" still selling well, 2/9 posted.

"Modern Wireless," 1/7.
"At About the All-Electric," 1/7.

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

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64 Courtenay Place, Wellington.

"CAMERON" (Canterbury): Your query was answered in our issue dated October 17. A little observation would have saved us time in looking up references.

G. P.K. (Te Aroha): In what issue was the "R" method of judging reception volume published?—August 22, 1930.

2. Could you publish a technical index?—We do so annually.

3. When are time signals sent from 2YA?—At 4 p.m. and 7.30 p.m.

"RECORD READER" (Huntly): I have a Mullard four-valve receiver. Where could I obtain short-wave coils?

A.: Write Spedding Ltd., Box 462, Auckland.

C.A.H. (Napier): I wish to construct the "Guide" screen-grid short-wave receiver. Could six-volt valves be used?—Yes.

2. What alterations will be necessary to the circuit?—None.

3. Which six-volt valves would be best?

A.: One screen grid, a special detector, a general purpose, and a 605 type.

4. Are amperites necessary when using a six-volt accumulator?—No.

A.B.C. (Waipawa): Where could I obtain a circuit diagram of a short-wave adapter to use with a commercial five-valve set?

A.: In the 1929 "Listeners' Guide." A further one will be published in the 1931 "Guide."

2. What is the best combination of valves to use with it?

A.: The ones you are at present using are quite suitable. Use a special detector, 415 type, in the adapter.

"AUDIO" (Oamaru): Is the short-wave adapter as described in the 1929 "Guide" as good as any for simplicity and efficiency?—Yes.

2. Where may I procure one?

A.: From almost any dealer or Te Aro Book Depot, Wellington.

3. Is the log enclosed a good one for my set?—Yes.

"MAC" (Oamaru): What would it cost to change my five-valve commercial set into an electric one?

A.: We do not advise it. It would not be worth the trouble.

2. My aerial pole on the house is five feet higher than the one at the bottom of the yard. Would it be better shorter?

A.: No, worse.

3. Would you advise me to bring my lead-in to the set as I have indicated?

A.: No, your aerial would be much less efficient.

H. P. (Blenheim): In a recent issue in "Laboratory Jottings" you say the Marconi pick-up is satisfactory for the average set. Could I get enough volume for a small room from my eight-valve super. het. with two audio stages?—Yes.

2. Could I arrange the pick-up so as to get the benefit of my full eight valves?

A.: No.

3. Who stocks the Marconi pick-up?

A.: The nearest agents for these, so far as we know, are Fear and Co., Willis Street, Wellington, and the C.A.S., Wellington.

A.S.M. (Fairburns): One of my masts is much lower than the other because of the slope of the ground, and my lead-in comes in from the top mast. Is that the correct one?

A.: Take it from the nearest. Otherwise it is immaterial.

"PEP-PUNCH" (Christchurch): What valve would you recommend for a one-valve amplifier, using Daniel Cells as "A" supply?

A.: In the two volt class use the Radiotron 280 type, in the four volt the 415 type.

2. Using Daniel cells as "A" supply, would it be necessary to use a wet "B" battery?

A.: No, a dry one would be quite suitable.

A.E.S. (Onehunga): I have a three-valve commercial set which I have been using about 15 months. I find now that I cannot get Wellington. I have renewed my valves, but not my batteries.

A.: It was probably not necessary to buy a new set of valves, but new "B" batteries are certainly indicated.

J.T.S. (Kaitangata): You stated in answer to a previous query concerning the Daniel Cell battery charger that the drain of 1.16 amps was a little high for the charging of a six volt accumulator by a nine cell Daniel's cell charger. Would the addition of another three cells, making a total of 12, be more efficient?

A.: It is certainly worth trying.

2. Would the increased voltage have a harmful effect on the accumulator.

A.: No, it would be quite safe.

"CRANK" (Wanganui): I enclose a copy of a circuit for a two-valve all-wave receiver taken from an English magazine. Would this be suitable for N.Z. conditions?

A.: Probably not. In a short time we will be publishing a series of excellent all-wave receivers. We would advise you to wait for this.

"CRYSTALITE" (Wellington): In the issue dated December 14, 1928, there appeared an article entitled "A Crystal with Unusual Volume." I have recently constructed this set for use at a place about 20 miles from Wellington, but cannot get the increased volume referred to. It is just as loud with one detector as it is with two, irrespective

of the manner in which the detectors are placed.

A.: In the first place this is merely an experimental set which, however, will do all that is claimed for it if it is working properly. Carborundum crystals are very patchy and though they appear to be matched they may differ electrically. We would advise that you experiment further until you get two that are properly matched. Forget about full-wave rectification which at the best of times is an experimental hook-up.

SARTORIUS (Woodville): My set has a background noise on the lower numbers of the tuning dial. At 20 it is a roar, and if I detach the aerial it bursts into oscillation. The noises are almost eliminated while it is raining.

A.: It appears that there is a leak either in the high-tension wires across the insulators or switches in, or surrounding your home is taking place, and

CORRESPONDENTS 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.

Name of set

Number of Vales

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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that when it is raining, the leakage is momentarily earthed. As the set goes into oscillation the noise is considerably increased, and more so as the high frequencies are approached, hence the roar. Disconnect the aerial if the noise ceases, connect the aerial up again, and tune the set to its loudest roar. Then switch on every electric switch in the house except that of the set. If there is a defective switch the roar will cease when the switch is cut off. If you locate the defective switch an electrician will fix it up for you.

2. Will a set using two 112A's satisfactorily work a dynamic speaker?

A.: No, you will need at least 171's.

LIGHT (Christchurch): Yes, your connections are quite in order. The resistance R3 would be 5000 ohms if you connected it from the point you have shown. You could use 3000 if it were taken from the centre point of a power valve filament.

LAMBDA (Wellington): What is the correct bias resistance for two 171A's in push-pull with 180 volts on the plate?—2000 ohms.

2. The residual hum in the push-pull stage is quite audible in the loudspeaker. Can you suggest a remedy?

A.: Only the use of a potentiometer across the a.c. filament supply and adjusted for minimum hum.

3. What value of resistance for volume control should be used in the push-pull stage?

A.: A volume control should be connected as is shown in the recent descriptions of the Loftin-White. Value should be about 200,000 ohms.

4. Would you comment on my diagram for screen grid detection on shortwave.

A.: Connect the screen to 90 volts and by-pass it with a quarter of a megohm to earth, but we do not advise the use of such a circuit. It would be advisable to spend money and time on 245's in the audio stages instead of screen grid detection.

5. Do you think a vertical aerial such as in the enclosed sketch would be any value for shortwave?

A.: For experimental shortwave transmission it would be interesting but very little can better a 70 to 100ft. straight aerial, except two such aerials in opposite directions.

6. What do you think of my rectifying system?

A.: We do not like the aluminium and lead rectifiers, and the Government dislike them to the extent that they prohibit their use.

A.S.H. (Auckland): Do you know who happens to be the agent for Mohawk sets?

A.: We regret we do not. If any reader happens to know we shall forward the address on to you.

"OVERTONE" (South Island): Is the audio amplifier of my set inferior to the Loftin White and could it be incorporated in the set?

A.: A little, yes, but unless you have a very true ear for music, particularly in the upper registers, you will not appreciate the difference. It could not practically be incorporated in your set. It is superior on the reproduction of records provided a good pickup and good speaker is used.

2. What is meant by the super exact balancing of all parts giving true clear tone?

A.: It means that the impedances are carefully matched and this is done in every good set.

3. Is it an illusion that tone sounds better to me through my receiver than on any others?

A.: While we would not go so far as to say that the tone of your set is any better than that of any other good model receiver, we would add that it is a long way in advance of many.

4. The L.W. I understand amplifies up to 10,000 cycles in a straight line. I was told that this was of no use, since the New Zealand stations do not broadcast above 6000.

A.: Quite so, hence the practical limitations of the L.W. If frequencies above 6000 are put out blasting takes place.

5. Would the L.W. give more music per note on records or broadcast reception?

A.: If you are looking for the over-tone and want real brilliant upper reproduction then the L.W. is the amplifier you are looking for. Record reproduction is really splendid. True, it is a tone to which one must be educated before it can be properly enjoyed.

E.W.D. (Invercargill): I constructed a kit set, but I cannot make the r.f. stages oscillate. I wound 70 turns of d.s.c. wire on a 2in. former.

A.: It is as well for your neighbours that you cannot make your r.f. stages oscillate. The detector is the oscillating valve and the r.f. must be perfectly stable before good reception is possible. You do not state the gauge of wire used in winding your coil so we cannot tell you if you have enough turns or not; 70 is the correct number for 26 d.s.c. wire. Try increasing the detector voltage.

2. How can I stop the speaker from rattling?

A.: By slackening the diaphragm, but in doing this you will make it more or less insensitive. Speakers of this nature will not handle a great deal of volume without distorting.

3. I have left out the by-pass condensers because I am running on batteries.

A.: They would be better in because they tend to stabilise the set.

"SHORT" (Temuka): When tuning short-wave coils the set reacts at a certain point, depending on the frequency, and then goes out of oscillation.

A.: Oscillating on short-wave takes place in a manner something like this; but examine your reaction condenser and see that it is quite in order and try a new grid-leak. If necessary, a grid condenser.

"CROMDALF" (Otago): I have plenty of room for a multi-aerial system. What do you advise?

A.: Try two Beverage aerials, one running north-west to Australian stations and the other north-east to the American. Such an aerial was fully described in the "Radio Record" a little while back. Arrange a switching device so that you can have either one at will. If you want to use the ordinary type aerials, run them in the same directions and for local reception one in line with either 3 or 1XA, whichever comes in the best, and about 20 feet from the ground.

J.E.B. (New Brighton): Does my receiver contain two r.f., one detector and three audio?

A.: As far as we know, yes.

2. What valve do you recommend for each stage?

A.: For all but the last stage, UX 201A's or 221's and a power valve of the 171A type in the last socket.

B.S.D. (Wanganui): Only one filament of the resistance lamp in the A and B charger in the 1930 "Guide" glows.

A.: You appear to have it connected up incorrectly. The 16 volts should each go to the extremes of the resistance such as you have shown diagrammatically in sketch B. From what you say it appears that the terminals on your valve have been wrongly marked. Use the valve in the position it appears to go best. A cross over like this, although unusual, is not impossible.

D.M.M. (Dunedin): Would less than 6ft. between a double aerial be satisfactory?

A.: It is unlikely that less than 6ft. would be any improvement over the single wire aerial.

2. What is the cause of motor-beating and bubbling in trying for distant stations?

A.: It is probably due to the detector valve or the grid-leak. Try another.

3. Is a pentode valve suitable in my set?

A.: Rather than a pentode we would advise one of the new type of high gain power valves, such as B406, which, by the way, is a four-volt valve.

"PICK-UP" (Auckland): When I turn the volume control of Loftin-White full on the set whistles.

A.: You do not state at what volume, relatively speaking, the set overloads. We presume you have tried reversing the connections and using a different pick-up. Furthermore, another screen-grid valve may help. Are you using the resistances described in the most recent description of the L.W.?

2. When I attempt to work the amplifier after a crystal set the output howls badly.

A.: For local station use the amplifier should be preceded by a tuned coil such as shown in the recent series.

"PEANUT" (Christchurch): Where can I obtain a circuit and specifications for an a.c. short-wave adapter to use with a screen-grid detector on my set?

A.: A super-het. would probably be quite in order, though if you used R, the W. Two plugged into a gramophone jack you would be much more certain of results. A suitable circuit for the gramophone jack will be described in the 1931 "Guide."

"WAIKATO" (Taupiri): I have made certain alterations in the H.R. a.c. set described in the 1930 "Guide." I want to use this for short-wave a.c.

A.: We think a much better plan would be to wait until the 1931 "Guide" and make the special a.c. set that will be described therein.

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What to Buy and Where

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WESTINGHOUSE Rectifiers	Chancery Street, Auckland.
BROWNING DRAKE SPECIALISTS	F. J. W. Fear & Co.
	63 Willis Street, Wellington.
BURGESS RADIO BATTERIES,	All Radio Dealers.
KING RADIO RECEIVERS	F. J. W. Fear & Co.,
	63 Willis Street, Wellington.
LOFTIN-WHITE AMPLIFIERS	Stewart Hardware Ltd.,
	Courtenay Place, Wellington.
MAJESTIC RADIO RECEIVERS	Kirkcaldie & Stains,
	Wellington Agents, Lambton Quay.
MULLARD VALVES	All Radio Dealers.
PILOT 1930 PARTS—PILOT	Harrington's, N.Z., Ltd.,
SUPER WASP KITS, GILFILLAN, KELLOGG and AT-	138-140 Queen St., Auckland.
WATER KENT SETS	40-42 Willis St., Wellington.
RADIOLA RECEIVERS and	Farmers' Trading Co., Ltd.,
Expert Radiola Service.	Hobson Street, Auckland.
STEINITE RADIO	G. G. Macquarrie, Ltd.,
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MAJESTIC	Radio House, Hamilton.
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Circuits for the Crystaphile

Some New Crystal Hook-Ups

BY "CATHODE."



WITH this issue we commence a short series of three or four articles covering various uses of the humble crystal rectifier. For the most part only circuit diagrams will accompany the notes, but where it is thought that a particular arrangement is worthy of being made up in permanent form, constructional details will be provided. We propose to commence with the simpler circuits, using a crystal alone, working up gradually through the less involved combinations of crystal and valve, and finishing the series with a mains-operated crystal-valve combination of considerable range and power.

The simple condenser-tuned crystal circuit shown in Fig. 1 will be familiar to every reader. Its capabilities are well known. It gives fine loud signals, and is ridiculously easy to construct. And you can make your coil as rough as you like, because the damping of the crystal is so heavy that a low-loss coil makes no difference.

Very, very nice—so long as we have only one local station. The only trouble is that we are all going to have two or three local stations before very long. When we find 2YA coming in with an obligato by 2ZW, we shall look long and anxiously at our faithful crystal sets. If we are wise and knowledgeable enough—or if we read the "Radio Record" faithfully each week—we shall know that certain quite minor changes will enable us to overcome that "flat-as-pancake" tuning of our crystal sets and relieve us of the necessity of being so blatantly and indecently greedy as to listen consistently to two programmes at the one time.

Direct-Coupled Crystal Set.

THERE are two reasons why a direct-coupled crystal set is un-

selective. One is damping. And the other is damping. On the one hand the aerial system is connected right across the tuned circuit; on the other hand we have the crystal also connected—through the 'phones—across the whole of the tuned circuit. A big improvement can be made by connecting both aerial system and crystal across only part of the tuned circuit. If at first sight it seems that signal strength will be reduced by applying only part of the voltage across the coil to the crystal, remember that the voltage across the coil is likely to be very much greater than was the case previously owing to the reduction in damping.

It may even be worth while making a decent coil now it has half a chance to do its job. Everyone has his own ideas about coil construction, but for ease of winding combined with fair efficiency a straightforward winding of 70 turns of 22 D.C.C. on a 3-inch former may be recommended for use with a .0003 or .00035 mfd. tuning condenser. This may be tapped at 20, 30, and 40 turns up from the earthed end of the coil for alternative connections for the aerial and crystal, or a single tapping at 30 turns up will make a good compromise. The connections are shown at Fig. 2.

Still Sharper Selectivity

ALTHOUGH the arrangement just described will provide adequate selectivity for most circumstances, we can go still further if we do not mind

coil may be wound first with the first 40 turns or so from the earthed and slightly spaced; the crystal coil may then be wound in the spaces. For the 70-turn tuning coil described above, the crystal winding should consist of about 40 turns.

The Aerial Tapping

BY now you will have formed the habit of reducing damping so badly that you will be regarding the aerial tapping with a critical and jaundiced eye. Well, you can loose-couple the aerial now. A third coil of 20 or 30 turns may be added to the other two and the aerial connected to this instead of to a tapping on the tuning coil.

There is no need for such tight coupling as was employed for the crystal coil, and this aerial coil may be wound on a 2½ inch former inside the tuning coil, or it may be wound over it on paraffined match-sticks or strips of ebonite spaced round the coil. The winding may be of 28 or 30 S.W.G. and should be located at the low-potential or earthed end of the tuning winding. The circuit will now be that shown at Fig. 4.

Incidentally, this method of construction provides about the maximum selectivity that can be obtained from a crystal receiver without sacrificing volume, so, following the programme

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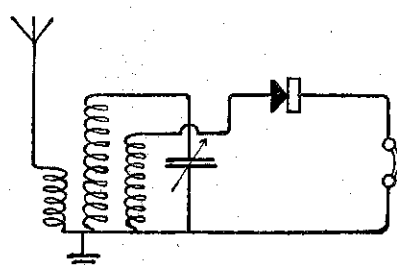
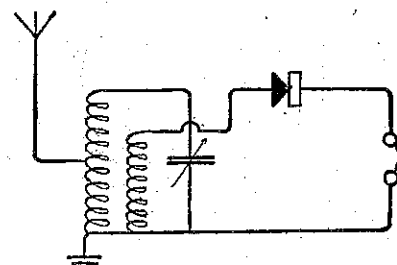
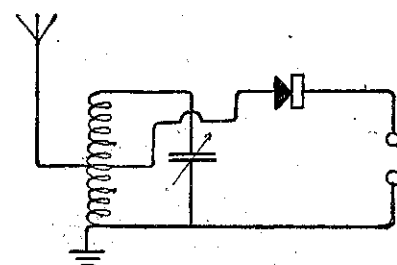
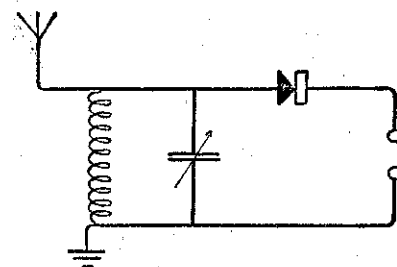
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Types of crystal circuits.

complicating our coil construction a little. A separate untuned coil may be very tightly coupled to the tuning coil, and the crystal connected to the untuned coil. The circuit then appears as in Fig. 3.

There is only one way to obtain sufficiently tight coupling for the two coils of this circuit, and that is to interwind them. The small coil for connection to the crystal should be wound with small wire (28 or 30 S.W.G.) and wound turn for turn with the tuning coil. If this task is found unduly awkward, the tuning

set forth in the first paragraph, constructional details are provided in Fig. 5. There is, of course, no objection to using a permanent or semi-permanent detector instead of the cat-whisker type shown.

Crystal and Valve.

HAVING exhausted the possibilities of the crystal by itself, we can now undertake the addition of a valve and see what combinations of valve and crystal are worth experimenting with. For the time being, the familiar transformer-coupled amplifier will not be taken note of, although it will come in for a little attention later on.

Most of us have at some stage in our career tried to use resistance coupling following a crystal. The outcome is usually something like Fig. 6. Not having any particular place to connect the other end of the plate resistance to, we leave it to its own devices. Likewise the grid leak. And yet the blessed thing works. As a matter of fact, if we remove the plate resistance but leave the coupling condenser and grid leak—using the latter to bias the valve—we have a direct-coupled amplifier, and one that works very nicely indeed. Nevertheless, we can do better yet.

If we eliminate the grid leak altogether, reduce the capacity of the condenser employed to .0001 mfd. or less, and change the position of the condenser so that it comes before the crystal instead of after it, quite an appreciable improvement will be found to have resulted. The difference will be particularly noticeable where signals are normally weak. Under these circumstances the direct or transformer-coupled amplifier does not show to advantage, the "lift" on a weak signal being nothing like that on a strong one. With this circuit, however, the weak signal receives just as much amplification as does the strong one, so that it is particularly useful to listeners located at some distance from a broadcasting station. It is known, by the way, as the "Sharman" circuit.

The most interesting feature of this circuit, however, is that there are present in the plate circuit of the amplifying valve impulses at radio frequency, and these are in phase with the impulses in the tuned circuit. It is therefore possible, by coupling a coil in the plate circuit of the valve to the tuning coil, to obtain a very useful reaction effect. This is particularly valuable in a receiver using a crystal rectifier in that it nullifies the serious damping imposed on the tuned circuit by the detector. Furthermore, provided it is not carried to excess, the use of reaction does not result in distortion in this type of circuit, while greatly increasing the range of reception. It will be noticed that no bias is applied to the amplifying valve. This does not, as might be expected, result in grid current distortion, as the grid is isolated from any source of current. The crystal

Aerials for Short-Wave Their Height, Length and Type

CORRESPONDENTS often discuss the pros and cons of short-wave aerials, and the following article from a contemporary is made timely by a querist this week.

Many readers will no doubt have discovered for themselves that almost any sort of aerial seems to be effective, from a very high one to a length of wire hung around the room, and that the great care one takes in the efficient erection and insulation of the aerial, apparently, is not altogether justified by the results.

Much depends on the particular locality and other circumstances in which the aerial is erected, and the seeming incongruity between a carefully installed aerial system and a rough and ready one is in reality a compromise between one or more detrimental characteristics.

The aerial employed by the writer consists of a flat top of about 30 feet between two poles thirty odd feet high, which, with the lead and ground lead (both of which come into the calculation), make an effective length of about 65 feet. Several other acquaintances use a length of wire strung round the picture rail, and find that, although the signal strength drops a little, the noise level is very much

less and the results apparently average out fairly well.

Because of the high frequency of the lower wavelengths, efficient insulation especially of the free end is imperative. This is obtained by means of a string of five or six insulators, or one having a long leakage path such as a strip of plate glass. Because of this alternating current nature of the high frequency currents, circulating in the aerial, an insulator merely acts as a small capacity and its "insulating" properties depend on the reactance (or a.c. resistance) of the

insulated and the capacity to earth (by which signal strength would be lost) kept very low. The earth connection should be short and well insulated, forming as it does part of the actual aerial system.

If the earth lead is too long, the tuning coil, across which we need as much of the aerial current as can be obtained for building up voltage across the grid and filament circuit of the valve, will not be in a favourable position. In any aerial system in which one end is earthed, maximum current will be found at the earthed end and maximum potential, with no current, at the free end. With this in mind, the current and voltage distribution for such an aerial system can be easily plotted for a given wavelength.

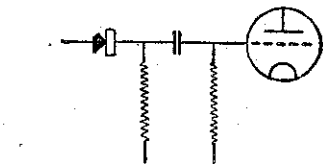
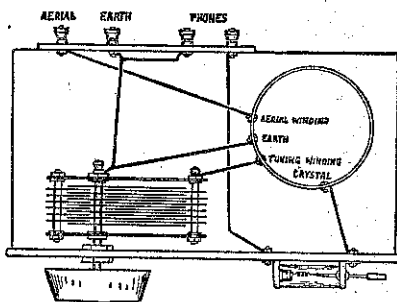
The earth lead must be insulated for stability of tuning. If it is left uninsulated it may so happen that during wet weather the receiver will be earthed at a point considerably shorter than the normal connection and will materially upset the tuning and general stability of the system.

An Ideal Aerial.

THE ideal aerial should be as high as possible, but height adds length. Length increases the capacity and inductance and reduces the number of turns which may be included in the aerial (or loading) coil across which we must develop the valve operating voltages. The capacity can be reduced by inserting a small capacity condenser in series with the aerial, such as is so commonly used for coupling in a short-wave receiver. By reducing the capacity of the aerial system it is possible to increase, within limits, the inductance, or for a given aerial length for any particular wavelength, the number of turns on the aerial coil.



This is Tony, the new 2YA radio dog. He broadcast for the first time last week, and will soon go on the air again.



capacity formed therein. The reactance for a given frequency will be higher (and the "insulation" therefore better) the lower we can make the effective capacity.

The effective capacity of several in series will always be less than the capacity of the smallest of them, so that by inserting a string of insulators in series with one another we can reduce the effective capacity of the whole to a low value and thus increase the resistance or insulation property to a high value.

A number of insulators in series also increases the leakage path during moist weather and is another desirable feature.

Where the lead-in passes close to the building it should also be well in-

Tips and Jottings

IF you are assembling your own loud speaker, do not hurry over the joints or attempt to fix the cone in position before it is thoroughly dry, as many a rattle or buzz in the finished speaker has arisen from this cause.

DO not forget when assembling a loud speaker unit that the driving rod should be mounted to come exactly opposite the tip of the cone itself.

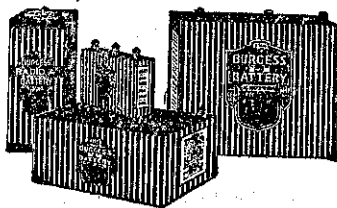
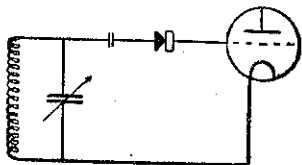
AMONG the advantages of a counterpoise earth are the fact that it sharpens tuning, and is often effective in reducing humming interference.

THERE are two types of oscillation, audible and inaudible, so do not suppose that because you cannot hear a howl the set cannot possibly be oscillating.

IF your reception suddenly varies or becomes distorted without your own set having been touched, it is indicative of "wipe-out" by a neighbouring circuit.

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FEATURE PEEPS

... at ...

FUTURE PROGRAMMES

SUNDAY

Auckland Topics

THE evening service in Pitt Street Methodist Church will be relayed, the preacher being the Rev. W. Walker, and the organist and choirmaster, Professor W. A. Moor. In the evening there will be a relay from the Town Hall of the concert by the Auckland Municipal Band under the conductorship of Mr. Hal McLennan.

Notes from 2YA

THE service of St. John's Presbyterian Church will be relayed this evening. The Rev. J. R. Blanchard, B.A., will be the preacher, and the organist and choirmaster Mr. C. W. Kerry. A studio concert by the Wellington Municipal Tramways Band will follow the church service. The band, under the conductorship of Mr. E. Franklin, will give an excellent and varied programme of a high order.

From 3YA

ON Sunday afternoon a combination of musical organisations in Christchurch—the Royal Christchurch Musical Society, the Woolston Band, Derry's Military Band, and Christchurch Municipal Band—will give an open-air concert, organised by the Christchurch Rotary Club, to raise funds to provide Christmas cheer for poor widows and children. The Rev. L. A. North, the newly inducted minister at Oxford Terrace Baptist Church, will be the preacher on Sunday evening, when the service will be broadcast. A studio concert will follow.

4YA Programme

THE Rev. G. B. Hinton will be the preacher at the Dunedin Central Mission Methodist Church when the service will be broadcast by 4YA. A relay of 3YA's after-church concert will follow.

MONDAY

From 1YA

THE Clarion Quartet will be heard in lighter vein in solos, duets and quartets. Miss Beryl Smith and Mr. Duncan Black will make a speciality of a humorous number entitled "O Sarah! O 'Enery!" and listeners will have the opportunity of hearing a really first-class combination.

Comment from 2YA

THE vocal solos by Miss Gwladys Edwardes will feature two compositions of an Australian composer, Phyllis Campbell, and two numbers

by Besley, a new English composer. Other artists will present selections from the finest operatic and classic numbers. There will be two sketches by Miss Zena Jupp and Mr. Errol Muir, and those who know these two artists will look with pleasure to to-night's programme.

At Christchurch

"BOOKS of the Month" will be reviewed by Mr. E. E. Wiltshire during the news session. Derry's Military Band (under Mr. J. Scott), the Valencia quartet, and the Christchurch Broadcasting Trio will provide the concert programme, which promises to be bright and varied.

4YA Notes

IT is more than two months since the Dunedin Orphans' Club presented a programme at 4YA, and listeners will be pleased to welcome the reappearance of this excellent body of entertainers. The club is one of the largest of its kind in the Dominion, and its array of talent is excellent.

A popular programme containing brass quartets, instrumental solos of every description, vocal quartets, duets, solos, and choruses, in addition to elocutionary items, will be presented.

TUESDAY

From 1YA

MR. G. C. TOLLERTON, president of the New Zealand Society of



BERT RAWLINSON, the popular 4YA baritone, who will sing four songs especially composed by the conductor of the Kaikorai Band.
—Artile, photo

Magicians, will speak at 7.40 on "Magic Through the Ages." Mr. G. C. Tollerton has made a study of magic since his boyhood, and is an excellent performer on the practical side.

The concert programme has been arranged, and will be given by Berta Carr, Maida Hooker, and company. Both of these ladies have a very high standing in the musical circles of Auckland.

Miss Berta Carr has had extensive study on the Continent, and has appeared on most of the London and suburban concert platforms. Miss Maida Hooker is one of Auckland's leading pianists, and is on the executive of the Auckland branch of the New Zealand Federation of Music Teachers. Apart from their own performances, these ladies have included in their programme some of Auckland's leading talent.

2YA Notes

THE 2YA programme will feature what has been described as one of the world's finest Christmas stories, Dickens' famous "Christmas Carol." Listeners will be treated to a dramatisation arranged by the eminent English elocutionist, Clement May. The Salon orchestra will play the incidental music.

From Christchurch

To-night's programme will be of a bright and varied nature.

Dunedin Notes

A HUMOROUS futuristic fantasia will claim much attention when presented by the Kaikorai Band at 4YA this evening. The item, which will occupy thirty minutes, is entitled "From Auckland to Dunedin in Thirty Minutes"—certainly futuristic and containing ample optimism.

During this fantasia, several selections, characteristic of the four principal centres of New Zealand, will be played by the band, and four original songs will be presented by Mr. Bert Rawlinson, baritone. The music for these songs has been composed especially for the occasion by the conductor of the band, Mr. Thos. J. Kirk-Burnand. Many other interesting items appear on the band's programme, and all are of a bright and humorous nature.

The opening march, "Merry Musicians," will claim special attention. It was written by the brilliant English band composer, Greenwood. Recitations will be given by Miss Ngata Buswell.

The Week

Combined Musicians' Concert
3YA Sunday.

Dunedin Orphans' Club
4YA, Monday.

"A Christmas Carol"
2YA Tuesday.

Midnight Mass
2YA, Wednesday.

Porirua Radio Opened
2YA, Thursday.

"Cinderella Up to Date"
1YA, Friday.

Maori Songs and Ballads
2YA, Saturday.

WEDNESDAY

From Auckland

Suitable Christmas Eve programmes have been arranged for all stations.

The 1YA Orchestral Octet, under the direction of Mr. Harold Baxter, will be heard in many interesting suites, and an outstanding feature will be a duet for violin and 'cello, "Duetto Amoroso," to be played by Mr. Harold Baxter and Miss Lalla Hemus. Included in the evening's programme will be two vocalists, Mr. and Mrs. Victor Baxter, who will be heard in solos and duets, the majority of which have been chosen from the musical comedy, "Maid of the Mountains."

The programme will be complete with "The Conversion of Scrooge" (from "Christmas Carol" by Charles Dickens). This will be given by Mr. J. M. Clark, whose reputation as an elocutionist is well known. He will also be heard in "Christmas at Sea" by Robert Louis Stevenson.

Barry Ingall and his Hawaiian Quartet, always favourites, will present a budget of new numbers, and the programme will include a session of dance music from 10 p.m. till 11 p.m. Until midnight Christmas carols and hymns will be given by the 1YA Broadcasting Choir under the direction of Mr. Len Barnes.

Wellington Features

FROM 8 p.m. to 10 p.m. 2YA listeners will be entertained with selections by the Salon Orchestra and the Golden Hula Hawaiian Orchestra and vocal numbers. In addition, Scottish humour will be dispensed by the Christchurch entertainer, Mr. Jock Lockhart, and humorous numbers of a topical nature will be given by Mr. Will Yates.

From 10 p.m. to 11.50 p.m. there will be something in the nature of a "community" sing, as nearly all the items will be favourites which lend themselves to such an occasion. The Lyric Quartet will sing the numbers, and gatherings of listeners round loud-speakers throughout the Dominion will no doubt sing with them.

Following the usual custom, the Midnight Mass will again be relayed from St. Gerard's Redemptorist Church by 2YA this year. This service is one that is always full of interest for listeners of all denominations. A feature of the service is the music which is always so admirably sung.

From Christchurch

A TALK about the forthcoming New Zealand tennis championship will be broadcast from 3YA by Mr. Reg. Browning.

At 3YA, a two hours' studio concert programme will be followed by an hour's dance music. From 11 o'clock till 11.55 there will be Christmas carols, when a rebroadcast of the Midnight Mass at St. Gerard's Redemptorist Church, Wellington, will be carried out.

A number of negro plantation songs will be included in the studio concert, and old favourites such as "Up from Somerset" and "By the Waters of Minnetonka" will be sung. A novelty turn will be a number of vibraphone items, played by a duo. Piano solos will be contributed by Miss Bessie Pollard, to an accompaniment by the Studio Octet. Selections by the Octet will include Coleridge Taylor's "Christmas Overture" and Hurst's "Bells o' Somerset."

Dunedin Notes

THE 4YA Studio Trio will present all the instrumental music on 4YA's programme. At the conclusion of the dance session, which will follow the concert, 4YA will broadcast Christmas music till the midnight chimes.



MISS Marjorie Chapman, cellist of the 3YA Studio Octet, commenced study of the pianoforte at the convent of the Sacred Heart, Christchurch, in 1920, and later continued under Mr. Heward Moody. Her study of the cello began in April, 1922, under Herr Zimmerman, joining in a few months' time Miss Flint's juvenile orchestra. In 1924 she became a member of the Christchurch Orchestral Society, afterwards playing in the orchestra at the Crystal Palace and Civic Theatre. In 1925 she became a pupil under her present teacher, Mr. Harold Beck. —Steffano Webb, photo.

THURSDAY

Xmas Features from 1YA

Special sessions will be observed at all stations to-day (Christmas Day).

1YA, 3YA and 4YA will hold children's sessions at 9 a.m. and 2YA at 10 a.m.

At 11 a.m. 1YA will relay Divine service from St. Matthew's Church. Canon Grant Cowen will preach and Mr. J. H. Philpott will be at the organ. The station will be on the air during the afternoon from 3 o'clock on. At 7.30 p.m. approximately there will be a relay of the concert to be given in the Albert Park by the Congress Hall Band, under the conductorship of Mr. T. Paice.

Christmas Day this year will mark the occasion of the opening of the Porirua Mental Hospital radio installation. This is to take place at 3 o'clock, and will be a unique event in that the official opening speech by the Minister of Health (Hon. A. J. Stallworthy) will be relayed from the Minister's residence, Auckland. At the conclusion of the opening ceremony a special programme of selected gramophone recordings will be given from the studio.

Wellington Notes

AT 8 p.m. 2YA will be on the air with a studio programme. The Orchestra will play the following selections: "The Christmas Overture," a selection from the opera "The Jewels of the Madonna," the "Adagio" from Mendelssohn's "Hymn of Praise," the "Polonaise" from the "Christmas Eve Suite" by Rimsky-Korsakov, Massenet's "Angelus," and a selection entitled "The Chapel Chimes."

Xmas Day at 3YA

AT 7 o'clock 3YA will relay a full choral evensong service from the Anglican Cathedral. Christmas carols will also be sung. The concert programme will be one of superior standard.

Recitals will be given by Mr. Rex Harrison (one of the finest baritones who has ever broadcast in New Zealand), Miss Cicely Audibert (soprano, with a reputation earned on the professional stage in Australia), Mr. J. J. Flewellyn (Dickens' sketches), Mr. H. G. Glaysher (harp solos), and Mr. James Shaw (tenor, who was a B.B.C. artist).

From 4YA

AT 10.30 a.m. 4YA will relay a church service conducted by the combined denominations.

A feature of the 4YA programme, which has been arranged by Mr. Ernest Drake, will be the choral singing. The principal soloists who took part in the recent highly successful recital in the Town Hall will be singing. Of special interest will be a chorus of twelve voices, which will present all the Christmas carols on this programme.

FRIDAY

Auckland Notes

The results of races at Auckland and Dunedin will be broadcast by 1YA and 4YA. These stations will be on the air all the afternoon.

1YA listeners will hear the Christmas pantomime, "Cinderella Up to



JAMES SHAW,

a fine tenor, who, prior to his arrival in New Zealand, made frequent appearances before the B.B.C. microphone.

Date." L.C.B. and Mr. Eric F. B. Waters, in collaboration, have succeeded in arranging and adapting this well-known pantomime in a snappy and up-to-date style that should prove very popular with listeners. Mr. Waters needs no introduction with listeners, for he composed the music of the opera "Tutankhamen," recently produced at His Majesty's Theatre with outstanding success. The cast has been well chosen and includes some of Auckland's leading talent. The instrumentation will be in the hands of Mr. Reg. Morgan and his orchestra, who will also provide a programme of dance music from 9.30 p.m. till 11 p.m.

From Wellington

THE 2YA programme will feature Mr. Jock Lockhart. The orchestra will play popular and novelty numbers. A dance programme, to conclude at 11 p.m., will follow the concert session.

3YA Items

A description of some of the New Zealand tennis championship games will be relayed from 3YA this afternoon.

Solos, duets, and choruses from "No, No, Nanette," "The Sunshine Girl," and "The Quaker Girl" will be

heard from 3YA. Humorous recitations will be given by Mr. H. Instone. A bright instrumental programme will be provided by the Studio Octet.

Dunedin Features

DUNEDIN'S variety programme will include an entertainment to be given on the marimbaphone by Mr. H. Dalziel. The entire programme will be of a very popular nature.

SATURDAY

Auckland Notes

RESULTS from the Auckland Trotting Club's meeting will be broadcast by 1YA, and 4YA will broadcast results of the Dunedin Jockey Club meeting.

At 7.40 p.m. Mr. G. D. Rutter will give a talk on "Gladioli."

The Municipal Band, under the conductorship of Mr. Hal McLennan, will present another of their popular concerts at 8 p.m. in the Auckland Town Hall, and this will be relayed by 1YA. The session will conclude with dance music from the studio from 10 p.m. till 11 p.m.

From 2YA

THE vaudeville programme from 2YA will feature the Salon Orchestra and a new mandolin duo. Miss Leah Johnston, a young Masterton mezzo-soprano, will sing several light ballad numbers. Maori songs and ballads will be featured by Mr. Toki.

Christchurch Features

THERE will be several noteworthy features about 3YA's programme. Mr. Roy Hill, the well-known 2YA tenor, and Miss Belle Renaut, now of 2YA, but previously a very popular 3YA vocalist, will both be singing. A new instrumental trio—Miss Thelma Cusack (violin), Miss Marjorie Chapman (cello), and Mr. Fred Page (piano)—will be playing. Miss Elaine Moody's Hawaiian Quartet, with guitars and ukuleles, will play popular airs, with vocal refrains by Miss Moody.

Notes from Dunedin

A BRIGHT vaudeville programme will be presented.

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CHRISTCHURCH

Full Programmes for Next

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Sunday, December 21

IYA, AUCKLAND, (900 KILOCYCLES)—SUNDAY, DECEMBER 21.

- 3.0 : 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, Pitt Street Methodist Church. Preacher: Rev. W. Walker. Organist and Choirmaster: Professor W. A. Moor.
 8.30: (approx.) Relay—Auckland Town Hall of Concert by Auckland Municipal Band, under the conductorship of Mr. Hal McLennan.
 9.30 (approx.): God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, DECEMBER 21.

- 3.0 : Chimes. Afternoon recital of selected gramophone records.
 6.0 : Children's Song Service, conducted by Uncle George, and assisted by a choir from The Terrace Congregational Church.
 6.40: Gramophone recordings.
 7.0 : Relay of Evening Service from St. John's Presbyterian Church. Preacher: Rev. J. R. Blanchard, B.A. Organist and choirmaster: Mr. C. W. Kerry.
 8.15: (approx.) Studio concert by the Wellington Municipal Tramways Band (conductor: Mr. E. Franklin) and 2YA artists.
 Overture—Band, "The Magic Flute" (Mozart).
 Soprano—Miss Myra Sawyer, "Far Away Lies a Land" (Thomas).
 Duet—Miss Myra Sawyer and Mr. W. Boardman, "What Hear I?"
 Violin—Emmanuel Bay, "Hungarian Dance No. 2" (Brahms).
 Selection—Band, "Un Ballo Maschera" (Verdi).
 Bass—M. W. Boardman, "My Last Abode" (Schubert).
 Contralto—Miss Ruby Jackson, (a) "May Song" (Beethoven); (b) "The Pain of Love" (Weber).
 Waltz—Band, "Senta" (Raymond).
 Weather report and station notices.
 Chas. Ancliffe and His Orchestra, "Ancliffe Waltz" Selection.
 Soprano—Miss Myra Sawyer, "Oh How Delightful" (Molloy).
 March—Band, "The Burning of Rome" (Ball).
 Chorus—Choir and Orchestra, "Men of England" (Ketelbey).
 Waltz—Band, "Love's Dream After the Ball" (Morelli).
 Contralto—Miss Ruby Jackson, (a) "I Love You Truly" (Jacobs-Bond); (b) "Turn Once Again" (Giordani).
 Selection—J. H. Squire's Celeste Octet, "Vision of Christmastide."
 Bass—Mr. William Boardman, "Slumber Song" (from "Mignon").
 Patrol—Band, "Jamie's Patrol" (Dacre).
 March—Band, "The Gladiator's Farewell" (Blankenburg).
 God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, DECEMBER 21.

- 3.0 : Relay from Christchurch Hospital Grounds of Christmas programme by the Christchurch Rotary Club, for orphans and children of the poor. The following musical combinations will assist:—Royal Christchurch Musical Society (conductor: Mr. W. H. Dixon); Woolston Brass Band (conductor: Mr. R. J. Estall); Derry's Military Band (conductor: Mr. J. Scott); Christchurch Municipal Band (conductor: Mr. J. Noble).
 4.0 : (approx.) From the studio. Afternoon session gramophone recital.
 5.30: Children's Song Service.
 6.15: Studio chimes.
 6.30: Musical recordings from studio.
 7.0 : Relay of Evening Service from Oxford Terrace Baptist Church. Preacher: Rev. L. A. North. Organist: Mr. W. Melville Lawry. Choir conductor: Mr. K. G. Archer.
 8.15: (approx.) After church programme from the Oxford Terrace Baptist Church: Excerpts from "The Messiah" (Handel), solos, chorus, etc.
 8.45: (approx.) Studio programme: Selection—Halle Orchestra, "Capriccio Espagnole" (Rimsky-Korsakov).
 9.0 : Weather forecast and station notices.
 9.2 : Mezzo-contralto—Mrs. Sidney Bryant, (a) "Like to the Damask Rose" (Elgar); (b) "A Mood" (Travers); (c) "Pass! Everyman."
 9.12: Piano—Miss Merle Miller, (a) "Sequidillas" (Albeniz); (b) "Rhapsodie in E Flat" (Brahms).
 9.20: Tenor—Mr. J. A. Blyth, (a) "Passing By" (Purcell); (b) "The Devout Lover" (M. V. White); (c) "Son of Mine" (Wallace).
 9.30: Selection—B.B.C. Wireless Military Band, "Le Reve Passe" (Krier).
 9.34: God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, DECEMBER 21.

- 3.0 : Chimes. Selected gramophone items.
 5.30: Children's Song Service, conducted by Big Brother Bill.
 6.30: Relay of evening Church Service from Central Mission Methodist Church. Preacher: Rev. G. B. Hinton.
 7.45: Selected gramophone items from the studio.
 8.15: Relay of concert programme from 3YA, Christchurch.
 9.30: God save the King.

Monday, December 22

IYA, AUCKLAND (900 KILOCYCLES)—MONDAY, DECEMBER 22.

- 12.0 : Afternoon session—Selected studio items, including Literary Selection by the Announcer.
 5.0 : Children's session, conducted by "Cinderella."
 6.0 : Dinner session.
 Royal Opera Orchestra, "Carmen—Entr'acte, Act 4 and Ballet No. 1."
 Piccadilly Orchestra, "My Beloved Gondolier" (Tibor).
 London Symphony Orchestra, "Chanson de Matin" (Elgar).
 Trio—Fritz and Hugo Kreisler, Michael Rauchaussen, "Marche Miniature Viennois" (Kreisler).
 6.14: Tacet.
 6.15: National Symphony Orchestra, "Light Cavalry Overture" (Suppe).
 Royal Opera Orchestra, "Carmen—Ballet No. 2" (Bizet).
 Piccadilly Orchestra, "Souvenir di Capri" (Becce).
 6.29: Tacet.
 6.30: Philadelphia Symphony Orchestra, "Invitation to the Waltz" (Weber).
 New Symphony Orchestra, "Pastoral Dance" (from "Nell Gwynn").
 Trio—Fritz and Hugo Kreisler, Michael Rauchaussen, "Syncopation."
 6.44: Tacet.
 6.45: London Symphony Orchestra, "Chanson de Nuit" (Elgar).
 Berlin State Opera Orchestra, "The Beautiful Galathea" Overture.
 New Symphony Orchestra, "Country Dance" (from "Nell Gwynn").
 6.59: Tacet.
 7.0 : News and market reports.
 8.0 : Chimes.
 Overture—Band of H.M. Coldstream Guards, "La Fille de Madame Angot" (Lecocq).
 8.9 : Vocal quartet—New Clarion Quartet, "The First Day of Spring."
 Soprano—Miss Lillian Woods, (a) "Deep in My Heart" (Aylward); (b) "Bird I Love Best" (Aylward).
 8.18: Selection—Orchestral Octet under direction of Mr. Harold Baxter, "Fortune Teller" (Herbert).
 8.30: Dialogue—Misses Maisie Carte-Lloyd and Lillian Lugton, "Oh Christina" (Harley).
 8.42: Flute duet—Gennin Bros., "Echoes of the Valley" (Gennin).
 8.46: Vocal duet—Miss Beryl Smith and Mr. Duncan Black, "O Sarah, O 'Enery" (Longstaff).
 Tenor—Mr. Lambert Harvey, (a) "I Love My Lady Sweet" (Russell); (b) "The Wayfarer's Night Song" (Easthope Martin).
 8.55: Morceau—The Orchestral Octet, "Cavatina" (Raff).
 9.1 : Evening weather forecast and announcements.
 9.3 : Organ—Charles Saxby, "Classica."
 9.11: Vocal—The New Clarion Quartet, "The Sun will soon be Shining."
 Contralto—Miss Beryl Smith, "Queen Mary's Song" (Elgar).
 9.17: Morceau—Orchestral Octet, "Squirrel Dance" (Smith).
 9.22: Humour—Miss Maisie Carte-Lloyd, (a) "Mrs. Murphy on Honesty" (Barry Pain); (b) "Had One Already" (Anon).
 9.31: Saxophone—Arnold Brilhart, "Fascination" (Bernie).
 9.35: Vocal duet—Miss Lillian Woods and Mr. Lambert Harvey, "Memory Lane" (Spier).
 Bass—Mr. Duncan Black, "Devonshire Cream and Cider" (Sanderson).
 9.41: Suite—Orchestral Octet, "Hibernian Suite" (Roelsel); (a) "Love Song"; (b) "Lament"; (c) "Jig."
 9.55: Vocal quartet—The New Clarion Quartet, "Evening's Pastoral."
 9.58: March—Orchestral Octet, "Youth" (Lautenschlager).
 10.2 : God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—MONDAY, DECEMBER 22.

- 12.0 : 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.
 Paul Godwin's Orchestra, "Musical Panorama Medley, Parts 1 and 2" (Lincke); "Birthday Serenade" (Linke).
 6.15: Paul Godwin's Orchestra, "The Spider" Intermezzo (Klose); "Tonerna" (Sjoberg); "Wedding Serenade" (Klose); "Butterfly Intermezzo." Violin with orchestra—Paul Godwin's Orchestra, "Serenade" (Tosti).

Week-all Stations-to Dec. 28

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- 6.30: Paul Godwin's Orchestra, "Geisha" Medley (Jones).
Instrumental—Vienna Schrammel Quartet, "Firefly's Appointment."
6.45: Paul Godwin's Orchestra, "Medley Memorial of Strauss' Waltzes."
Instrumental—Vienna Schrammel Quartet, "Serenade" (Heykens).
7.0: News session, market reports and sports results.
7.40: Lecturette—Mr. H. O. South, "Books—Grave and Gay."
8.0: Chimes. Overture—2YA Orchestra (Conductor, Signor A. P. Truda), "Ruy Blas" (Mendelssohn).
Selection—Orchestra, "Rigoletto" (Verdi).
8.16: Soprano—Miss Gwladys Edwardes, (a) "An Australian Cradle Song" (Phyllis Campbell); (b) "An Irish Cradle Song" (Phyllis Campbell); (c) "How the Holly got its Thorns" (Besley); (d) "The New Umbrella" (Besley).
8.26: Selection—Band of H.M. Coldstream Guards, "1812 Overture."
March—Sousa's Band, "High School Cadets" (Sousa); "Under the Double Eagle" (Wagner).
8.41: Tenor—Mr. Eric Rishworth, (a) "The Miller's Flowers" (Schubert); (b) "Mine" (Schubert); (c) "In the Dawn" (Elgar); (d) "Faery Song" (Rutland-Boughton).
Sketch—Miss Zena Jupp and Mr. Eroll Muir, "The Reason Why" (Mrs. Barry Pain); "Which Is It" (Bertha Moore).
8.56: Piano—Miss Madge Dorling, "The Avowal" (Liszt).
9.1: Weather report and station notices.
9.2: Relay of organ recital by Mr. H. Temple White, (a) "Festival March" (Callin); (b) "On Lake Geneva" (Bendel); (c) "Song Without Words" (Dupont); (d) "Chorus of Shepherds" (Lemmens).

- 9.17: Baritone—Mr. Harry Matthews, (a) "I Got a Robe" (Negro Spiritual) (Edna Thomas); (b) "It's a Beautiful Day" (Sterndale-Bennett); (c) "Leanin'" (Sterndale-Bennett); (d) "Five Eyes."
9.32: Suite—Orchestra, "Christmas Tree Suite" (Rebikov); (a) "March of the Gnomes," (b) "Silent Night," (c) "Dance of the Chinese Doll," (d) "Dance of the Clown."
9.47: Contralto—Miss Dorothy Spiller, (a) "Prelude" from "A Cycle of Life" (Landon Ronald); (b) "Whatever is, is Best" (Lohr); (c) "The Rain Fairy" (Arundale).
9.59: Valse—Orchestra, "Reverie" (Waldteufel).
10.5: Dance programme.
Foxtrots—Nat Shilkret and His Orchestra, "Nobody but You."
Jack Hylton and His Orchestra, "Orange Blossom Time."
Nat Shilkret and His Orchestra, "Your Mother and Mine."
Waltz—Leo Reisman and His Orchestra, "Dance Away the Night."
10.12: Foxtrots—The Rounders, Jack Hylton and His Orchestra, "Singin' in the Rain" (Freed-Brown).
The High Hatters, "Low Down Rhythm" (Klages-Greer).
Waring's Pennsylvanians, "Navy Blues" (Turk-Ahlert).
Humour—Norman Long, "Is it British?" (K. and G. Weston).
10.24: Foxtrots—Henry Busse and His Orchestra, "Since I Found You."
George Olsen and His Music, "South Sea Rose."
Charles Dornberger and Orchestra, "Maybe—Who Knows?."
Leo Reisman and His Orchestra, "Doing the Boom Boom."
10.36: Waltz—Henry Busse and His Orchestra, "Like a Breath of Springtime" (Dubin-Burke).
Vocal—Norman Long, "I Think of You" (K. and G. Weston).
10.42: Foxtrots—Victor Arden, Phil Ohman and Their Orchestra, "Love, Your Spell is Everywhere" (Janis-Goulding).
Nat Shilkret and His Orchestra, "You Made Me Love You, Why Did You?" (Lombardo-Kippel).
Leo Reisman and His Orchestra, "Look What You've Done to Me" (Conrad, Mitchell-Gottler).
10.51: Waltz—Ben Pollack and His Park Central Orchestra, "You're Always in My Arms" (McCarthy-Tierney).
Foxtrots—"Sweetheart, We Need Each Other" (McCarthy-Tierney).
Charles Dornberger and Orchestra, "I Want to Meander in the Meadow" (Wood-Tobias).
11.0: God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—MONDAY, DECEMBER 22.

- 12.0: Special session gramophone recital.
4.25: Sports results.
5.0: Children's Hour, conducted by Cousin Margot and The Mystery Man.
6.0: Dinner music session.
Royal Albert Hall Orchestra, "Carmen Prelude Act 1" (Bizet).
National Symphony Orchestra, "Sylvia Ballet Cortege De Bacchus."
Organ—Reginald Foort, "Schon Rosmarin" (Kreisler).
6.15: Marek Weber's Orchestra, "Vienna By Night" (Komzak).
Cello—Lauri Kennedy, "Hungarian Rhapsody" (Popper).
6.30: National Symphony Orchestra, "Bohemian Girl" Selection (Balfe).
Royal Albert Hall Orchestra, "Carmen Prelude Act 2" (Bizet).
Organ—Reginald Foort, "A Brown Bird Singing" (Haydn-Wood).
6.45: Royal Opera Orchestra, "Hungarian Dance No. 5" (Brahms).
H.M. Coldstream Guards, "H.M.S. Pinafore" selection (Sullivan).
7.0: News session.
7.30: Talk—Mr. E. E. Wiltshire, "Books of the Month."
8.0: Chimes.
Band Programme by Derry's Military Band, Conducted by Mr. J. Scott and assisted by 3YA Artists.
March—Band, (a) "Argandab" (Thompson) Troop; (b) "May Blossom" (Weir).
8.10: Valencia Quartet, "Come to the Fair" (Martin).
Tenor—Mr. T. G. Rogers, "Mary of Argyle" (Nelson).
8.17: Broadcasting Trio, "Trio in D" (Bohm).
8.27: Contralto—Miss Jean Johnson, (a) "The Crescent Moon" (Sanderson), (b) "Vale" (Russell).
8.32: Descriptive Scene—Band, "In a Chinese Temple Garden" (Ketelbey).
8.39: Bass—Mr. E. J. Johnson, (a) "Because" (D'Hardelot); (b) "Hatfield Bells" (E. Martin).
8.44: Organ—G. T. Pattman, "In a Monastery Garden" (Ketelbey).
8.48: Soprano—Miss Lucy Fullwood, (a) "It is Only a Tiny Garden" (Haydn Wood), (b) "Husheen" (Needham).
8.54: Waltz—Band, "Beautiful Danube" (Strauss).
9.0: Weather forecast and station notices.
9.2: Selection—London Orchestra, "Valse Memories" (arr. Somers).
9.10: Quartet—Valencia Quartet, "Oh! Who Will O'er the Downs So Free." (Ketelbey).
9.13: Organ—G. T. Pattman, "Sanctuary of the Heart" (Ketelbey).
9.17: Tenor—Mr. R. G. Rogers, "Mona" (Stephen Adams).
9.20: Tone poem—Band, "Breezes From the South" (Myddleton).

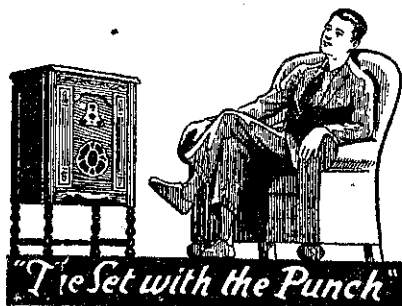
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- 9.30: Contralto—Miss Jean Johnson, "Hail Caledonia" (Stroud).
 9.34: Broadcasting Trio, (a) "Spring Song" (Mendelssohn), (b) "Softly Awakes My Heart" (Saint-Saens), (c) "Three Fours Valse."
 9.44: Bass—Mr. E. J. Johnson, "The Curfew" (Monk-Gould).
 9.48: Serenade—Band, "La Serenata" (Braga).
 9.53: Valencia Quartet—"The Tight Little Island" (arr. Fanning).
 9.56: March—Band, "Old Comrades" (Teike).
 10.1: God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—MONDAY, DECEMBER 22.

- 8.0: Selected recordings.
 5.0: Children's session, conducted by Big Brother Bill.
 6.0: Dinner music.
 J. H. Squire's Celeste Octet, "Operatica" (arr. J. H. Squire).
 Band—The Bombardiers, "Hungarian Dance No. 5" (Brahms).
 Orchestre Symphonique de Paris, "L'Arlesienne Suite" Adagietto.
 6.15: Regal Orchestra, "Pagliacci" Selection (Leoncavallo).
 Orchestre Symphonique de Paris, "L'Arlesienne Suite—Entr'acte, Le Carillon" (Bizet).
 6.30: London Theatre Orchestra, "A Country Girl—Selection" (Monckton).
 Band—The Bombardiers, "Hungarian Dance No. 6" (Brahms).
 Orchestre Symphonique de Paris, "L'Arlesienne Suite—Intermezzo."
 6.45: Regal Cinema Orchestra, "Show of Shows" Selection.
 J. H. Squire's Celeste Octet, "Scene of the Jasmine" (J. H. Squire).
 Orchestre Symphonique de Paris, "L'Arlesienne Suite—Entr'acte, La Cuisine De Castelet" (Bizet).
 7.0: News session.
 8.0: Studio programme by members of Dunedin Orphan's Club, assisted by lady artists, under the direction of Mr. R. Bryant.
 Selections—New Mayfair Orchestra, "Post Horn Galop" (Koenig), "Sir Roger" (Daykin).
 Brass Quintet—(a) "Clouds and Sunshine" (Round); (b) "Return of Spring" (Round).
 8.13: Baritone—J. Duerden, "Tommy Lad" (Magetson); "Beautiful Day." Tenor—J. Davies, "There's a Land" (Allitsen).
 8.23: Piano—Thos. J. Kirk-Burnand, "Sonata in C Minor" (Beethoven).
 8.38: Mezzo-soprano—Miss Elsie Bryant, "A Birthday" (Woodman), "Love's a Merchant" (Carew).
 Bass—Mr. R. Bryant, "Call of the Wild" (McGeoch).
 8.48: Waltz—International Novelty Quartet, "Merry Widow" (Lehmann).
 Brass Quartet—"In This Hour of Softened Splendour" (Pinsuti).
 8.54: Baritone—Mr. T. W. Dobbie, "Strike Up a Song" (Morgan); "One Fleeting Hour" (Lee).
 9.0: Weather report and station notices.
 9.2: Selection—Herman Finck's Orchestra, "Christmas Memories." Instrumental—Mr. W. J. Nelson, "Air With Variations" (Hock).
 9.18: Bass—Mr. J. Clark, (a) "Two Grenadiers" (Schumann), (b) "Garden of Allah" (Marshall), (c) "Blow, Blow Thou Winter Wind."
 9.28: Flute—Mr. C. Gibbons, (a) "Birds of the Forest" (Gibbons), (b) "Annie Laurie" (Gibbons).
 9.38: Baritone—Mr. F. Watt, "The Wolf" (Shield), "Harvester's Night Song" (Martin).
 Tenor—Mr. J. Davies, "The Bard of Armagh" (Trdtl.).
 9.47: Gavotte—Ketelbey's Concert Orchestra, "Wedgewood Blue."
 Piano—Thos. J. Kirk-Burnand, "Two Transcriptions For Piano."
 9.54: Bass—Mr. R. Bryant, "Lilac Time" (Garthen); "Song of Hope."
 10.0: March—Band of H.M. Grenadier Guards, "Fighting Strength."
 10.3: God save the King.

2YB, NEW PLYMOUTH (1230 KILOCYCLES)—MONDAY, DECEMBER 22.

- 6.30: Children's session.
 7.30: News, markets, and information.
 8.0: Studio concert.

Tuesday, December 23

1YA, AUCKLAND (900 KILOCYCLES)—TUESDAY, DECEMBER 23.

- 12.0: Afternoon session—Selected studio items, including literary selection by the Announcer.
 8.15: Talk—Mrs. Les Crane, "Health of Mind and Body in Relation to Diet."
 8.30: Further selected studio items.
 5.0: Children's session, conducted by Uncle Dave.
 6.0: Dinner session.
 Royal Opera Orchestra, "Sylvia Ballet—Pizzicato Ballet—Pizzicato and Procession of Bacchus" (Delibes).
 New Light Symphony Orchestra, "Scene de Ballet Marionettes."
 Royal Opera Orchestra, "The Sleeping Beauty" Panorama.
 6.15: National Symphony Orchestra, "Irish Rhapsody" (Herbert).
 Trio—Fritz and Hugo Kreisler, Michael Rauchausen, "Sanctissima."
 6.30: National Symphony Orchestra, "Orpheus in Hades" Overture.
 Royal Opera Orchestra, "Shepherd Fennel's Dance" (Balfour-Gardiner).
 6.45: National Military Band, "Lohengrin" Prelude (Wagner).
 New Light Symphony Orchestra, "Persiflage" (Francis).
 Trio—Fritz and Hugo Kreisler, Michael Rauchausen, "Arlesienne Intermezzo" (Bizet—arrgd Kreisler).
 La Scala Orchestra, "The Secret of Susanna" Overture" (Wolf-Ferrari).
 7.0: News and market reports.

- 7.40: Talk—Mr. G. C. Tollerton, "Magic Through the Ages."
 8.0: Chimes. Presentation of Programme by Miss Berta M. Carr, Maida Hooker and Company.
 Piano Quartet—Misses Maida Hooker, Merilyn Morris, Edna Tye and Olwen Burton, overture to "Tancredi" (Rossini); "Arabesque."
 8.9: Mezzo-soprano—Miss Berta M. Carr, (a) "Alone" (Chaminade); (b) "La Follietta" (Marchesi); (c) "Shepherd's Song" (Elgar).
 8.15: Piano—Miss Merilyn Morris, (a) "Allemande"; (b) "Courante"; (c) "Sarabande"; (d) "Gigue" (from "French Suite") (Bach); (e) "Etude de Concert" (Liszt).
 8.25: Contralto—Miss Norma Joll, (a) "Sapphic Ode" (Brahms); (b) "Sea Fever" (Ireland).
 Vocal duet—Misses Norma Joll and Margaret Reilly, "Barcarolle."
 8.33: Violin—Miss Daphne Higham, "On Wings of Song" (Mendelssohn).
 8.40: Lyric soprano—Miss Patricia McLeod, "Rejoice Greatly" (Handel).
 8.46: Piano—Miss Edna Tye, "Rage Over a Lost Penny" (Beethoven).
 8.51: Mezzo-soprano—Miss Margaret Reilly, (a) "Ave Maria" (with violin obligato) (Gounod); (b) "I Love Thee" (Grieg).
 8.59: Evening weather forecast and announcements.
 9.1: Piano duo—Misses Olwen Burton and Merilyn Morris, "Rhapsodie No. 2."
 9.9: Mezzo-soprano—Miss Berta M. Carr, (a) "Tre Giorni" (Pergolesi); (b) "Ouvre Tes Yeux Gleus" (Massenet); (c) "Lullaby" (Scott).
 9.15: Violin—Miss Daphne Higham, (a) "Rondino" (Kreisler); (b) "Mazurka" (Wieniawski).
 9.20: Piano—Miss Maida Hooker, (a) "Clair de Lune" (Debussy); (b) "Golliwog's Cake Walk" (Debussy).
 9.32: Programme of dance music until 11 p.m.
 Foxtrots—The Harmonians with vocal chorus, "I'm in Seventh Heaven." The Knickerbockers with vocal refrain, "Song of Siberia." The Harmonians with vocal chorus, "Used to You." Ernie Golden and His Orchestra, with vocal chorus, "Satisfied" (Friend-Caesar).
 9.42: Vocal—Eddie Walters, with piano and guitar accompaniment, "Goodness Gracious Gracie" (Abbott, Sasem and Wimbrow).
 Foxtrots—Stellar Dance Band, "Dancing Goblin" Novelty Foxtrot. Harry Reser's Syncopators, with vocal chorus by Tom Stacks, "The Flipperty Flop" (Coslow, Robin and Whiting).
 Stellar Dance Band, "Giggling Golliwog" Slow Foxtrot.
 Waltz—Ben Selvin and His Orchestra, "I've Waited a Lifetime for You" (Edwards-Goodwin).
 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" (Woods, Tobin-Bohr).
 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).
 10.5: Duet—Pearce Brothers (Al and Cal), "If I Give Up the Saxophone." Foxtrots—Ben Selvin and His Orchestra, "Am I Blue?" (Akst-Clarke). The Midnight Revellers, "If I Had My Way" (Green-Wagner).
 10.27: Foxtrot—Ted Florito and His Edgewater Beach Hotel Orchestra, "Candle Light Lane" (Lewis-Florito).
 Waltz—Frank Ferera's Hawaiian Trio, with vocal chorus, "Pagan Love Song" (Brown-Freed).
 Foxtrot—Guy Lombardo and His Royal Canadians, "You Want Lovin'."
 10.30: Vocal—Marie Burke, "The Song I Love." Foxtrots—Guy Lombardo 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 Issy Azzy Wozzy" Harry Reser'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.

2YA, WELLINGTON (720 KILOCYCLES)—TUESDAY, DECEMBER 23.

- 12.0: Chimes. Selected studio items.
 3.30 and 4.30: Sporting results to hand.
 5.0: Children's session, conducted by Uncle Toby and Jumbo.
 6.0: Dinner music session.
 Albert Sandler and His Orchestra, "Somebody, Somewhere." B.B.C. Wireless Military Band, "Strathspeys and Reels Pt. 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."
 6.15: Percy Pitt and Augmented Symphony Orchestra, "Poet and Peasant." Harp—Sidonie Goossens, "Song of the Volga Boatmen."
 H. G. Amers and the Eastbourne Municipal Band, "The B'Hoys of Tipperary" (Amers).
 6.30: Albert Sandler and His Orchestra, "Sonny Boy." H. G. Amers and the Eastbourne Municipal Orchestra, "Second Serenata" (Toselli, arrg. Geehl).
 Saxophone—Rudy Wiedoeft, "La Cinquantaine." Debroy Somers Band, "Russian Fantasy" (arr. Lange and Somers).
 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."
H. G. Amers and the Eastbourne Municipal Orchestra, "Tarantelle for Flute and Clarinet" (Saint-Saens).
- 7.0 : News session, market reports and sports results.
8.0 : Chimes.
Overture—Salon Orchestra. (Conductor Mr. M. T. Dixon). "Wolga Gipsies" (Spiateck).
8.9 : Quartet—Melodie Four, "Amazon" (Eltinge).
Bass—Mr. W. W. Marshall, "When My Dreams Come True" (Berlin).
8.15 : Selection—Salon Orchestra, "A Vision of Christmas Tide" (Ketelbey).
8.21 : Play—A special dramatisation of Charles Dickens famous story, "A Christmas Carol" arranged by Mr. Clement May. Incidental music will be played by the Salon Orchestra.
9.1 : Weather report and station notices.
9.2 : Selection—Salon Orchestra, "Vie Pour Le Czar" (Glinka).
9.10 : Soprano—Mrs. R. S. Allwright, (a) "Wake Up" (Phillips), (b) "The Cuckoo Clock" (Schaeffer).
9.15 : Organ—Clarence Raybould, "Medley of Christmas Hymns and Carols."
9.23 : Tenor—Mr. Sam Duncan, "Sally Horner" (Old English).
9.26 : Duet—Mr. Frank Bryant and Mrs. R. S. Allwright, "Little Bluebird of My Heart" (Grey).
9.29 : Clarinet with orchestra—Mr. H. Langtry and Salon Orchestra, "Concertino" (Weber).
9.37 : Bass—Mr. W. W. Marshall, "When It's Springtime in the Rockies."
9.41 : Guitar—Walter Kolomoku's Honoluluans, "Southern Melodies Waltzes, Nos. 1 and 2."
9.49 : Tenor—Mr. Frank Bryant, "Love Lily" (Thompson).
9.52 : Quartet—Melodie Four, "Mulligan Musketeers" (Atkinson).
9.56 : Selection—Salon Orchestra, "Celebrated Minuet" (Boccherini).
10.1 : God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—TUESDAY, DECEMBER 23.

- 12.0 : Noon session—Gramophone recital.
4.25 : Sports results.
5.0 : Children's hour, conducted by "Aunt Pat."
6.0 : Dinner session:
Marek Weber and His Orchestra, "Cavalleria Rusticana" Selection.
Violin—Fritz Kreisler, "Schon Rosmarin" (Kreisler).
Vienna Philharmonic Orchestra, "Hungarian Dance No. 3" (Brahms).
6.15 : Berlin Philharmonic Orchestra, "Tannhauser" March (Wagner).
Piano—Mischa Levitzki, "Sonata in A Major" (Scarlatti).
De Groot and His Orchestra, "I Love You" (Grieg).
Berlin Philharmonic Orchestra, "Hungarian March—The Damnation of Faust" (Berlioz).
6.30 : Berlin State Orchestra, "Oberon Overture" (Weber).
Violin—Fritz Kreisler, "Rondino" (Kreisler).
Vienna Philharmonic Orchestra, "Hungarian Dance No. 1" (Brahms).

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- 6.45 : Royal Opera Orchestra, "Entr'acte, Act 4, and Ballet Music" from "Carmen" (Bizet); "Ballet Music" (Bizet).
Piano—Mischa Levitzki, "Ecossaise" (Beethoven).
De Groot and His Orchestra, "Romance" (Rubinstein).
7.0 : News session.
7.30 : Addingdon Stock Market Reports.
8.0 : Chimes. Popular Programme:
Overture—London Theatre Orchestra, "The Maid of the Mountains."
8.9 : Baritone—Mr. E. A. Dowell, (a) "My Tonia" (Brown and Henderson), (b) "Monna Vanna" (Dubin), (c) "Love Sends a Little Gift of Roses" (Openshaw).
8.19 : Rebroadcast from 2YA Wellington of a special dramatisation of Charles Dickens's famous story "A Christmas Carol," arranged by Mr. Clement May.
9.0 : Weather forecast and station notices.
9.2 : Violin and piano improvisations—Messrs. D. Mitchell and Bert Goodland, (a) "Liebestraume" (Liszt, arr. Goodland), (b) "Topical Refrains" (arr. Goodland).
9.14 : Contralto—Miss Nellie Lowe, (a) "My Dear Soul" (Sanderson), (b) "Mifanwy" (Foster), (c) "Japanese Love Song" (Brahe).
Duet—Dulcet Duo, "The Crafty Crocodile" (Trevalsa).
9.25 : Songs at the piano—The Joyous Pair, (a) "I'm Following You" (Dreyer); (b) "When It's Springtime in the Rockies" (Sauer); (c) "In an Old-World Garden" (Pepper), (d) "Cheer Up! Good Times are Coming" (Greer).
9.37 : Baritone—Mr. A. G. Thompson, (a) "I Gave You a Rose" (Aylward), (b) "Serenade in Summer" (Denza), (c) "If All the Young Maidens" (Lohr), (d) "Simon the Cellarer" (Hatton).
9.48 : Trombone—Mr. E. G. Williams, (a) "Songs Without Words" (Hans), (b) "In Cellar Cool" (Ord Hume).
9.58 : Humour—Mr. Reg. Lamb, (a) "Romeo" (Wood and Long), (b) "Packing" (Carter), (c) "The Commercial Traveller" (Long).
10.0 : Selection—Ketelbey's Concert Orchestra, "Jungle Drums" (Ketelbey).
10.14 : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—TUESDAY, DECEMBER 23.

- 12.0 : Selected gramophone items.
4.25 : Sporting results.
5.0 : Chimes. Children's hour, conducted by Uncle Bert.
6.0 : Dinner music.
Grand Symphony Orchestra, "Vienna Operetta Revue" (Robrecht).
Jacques Jacobs' Ensemble, "Wiener Blut" (Strauss).
6.14 : Tacet.
6.15 : Band of H.M. Grenadier Guards, "La Benediction des Poignards."
Jacques Jacobs' Ensemble, "España Waltz" (Waldteufel).
Plaza Theatre Orchestra, "My Lady Dainty" (Hesse).
Jacques Jacobs' Ensemble, "Sobre Las Ojas" (Rosas).
6.29 : Tacet.
6.30 : Symphony Orchestra, "Countess Mariza" Medley (Kalman).
Jacques Jacobs' Ensemble, "L'Estudiantina" (Waldteufel).
6.44 : Tacet.
6.45 : B.B.C. Wireless Symphony Orchestra, "Il Trovatore" Selection.
Band of H.M. Grenadier Guards, "Lo! Here the Gentle Lark."
Plaza Theatre Orchestra, "The Busy Bee" (Bendix).
6.59 : Tacet.
7.0 : News session.
7.40 : Talk—Mr. R. W. Coupland, "Tourist Resorts."
8.0 : Chimes. Programme of music to be rendered by Kaikorai Band, under direction of Mr. Thos. J. Kirk-Burnnand.
March—Band, "Merry Musicians" (Greenwood).
Duo D'Amour—Band, "Gallantry" (Ketelbey).
8.10 : Duet—Miss Ella Haydon and Mr. R. B. Macdonald, "Twilight."
8.13 : Guitar—Hilo Hawaiian Orchestra, "My Hula Love."
8.16 : Recitals—Miss Ngata Buswell, (a) "The Approach of Christmas" (Guest); (b) "Trooper Johnny Ludlow" (Barrow).
8.22 : Overture—Band, "Southern Star" (Greenwood).
8.32 : Contralto—Miss Ella B. Clarke, "Roam as I May" (Rosa).
8.35 : Organ solos—Reginald Foort, (a) "Worryin'" (Fairman); Jesse Crawford, (b) "Me and the Man in the Moon" (Monaco).
8.41 : Bass—Mr. R. B. Macdonald, (a) "Four Jolly Sailors" (German); (b) "Gypsy Love Song" (Herbert).
8.47 : Characteristic novelty—Band, "Elephants' Parade" (Bosque).
Reverie—Band, "The Sacred Hour" (Ketelbey).
8.57 : Soprano—Miss Ella Haydon, "The Man who Brings the Sunshine."
9.0 : Weather report and station notices.
9.2 : Selection—Court Symphony Orchestra, "In Venice" (Sellars).
9.6 : Duets—Ella Haydon and R. B. Macdonald, (a) "Sincerity" (Clarke); (b) "The Day is Done" (Lohr).
9.12 : Recital—Miss Ngata Buswell, "He Fell Among Thieves" (Newbold).
9.15 : A humorous futuristic fantasia with vocal effects—The Band and Mr. Bert Rawlinson, "Auckland to Dunedin in Thirty Minutes."
Band selections include: "Sunshine and Shadow" (Kela Bela); "Sir Harry Lauder's Songs" (Lauder); "Sunset on the Avon" (Kirk-Burnnand); "Extracts from William Tell" (Rossini).
Vocal items—"Four Popular Songs of the Centres" (Thompson and Kirk-Burnnand).
9.45 : Cello—Pablo Casals, "Spanish Dance" (Popper).
9.49 : Contralto—Miss Ella B. Clarke, (a) "Persian Love Song" (Rubenstein); (b) "Down Here" (Brahe).
9.56 : Chromatic march—Band, "Half and Half" (Morrison).
10.0 : God save the King.

Wednesday, December 24

1YA, AUCKLAND (900 KILOCYCLES)—WEDNESDAY, DECEMBER 24

- 12.0 :** Afternoon session—Selected studio items, including Literary Selection by the Announcer.
- 5.0 :** Children's session.
- 6.0 :** Dinner music.
Charles Ancliffe and His Orchestra, "Ancliffe Waltzes" selection.
Octet—J. H. Squire's Celeste Octet, "Twilight on the Waters" (Squire).
Gil Dech Ensemble, "Italian Nights" (Roberts).
- 6.15 :** Regal Cinema Orchestra, "Sally" Selection (Burke-Kern).
Organ—Quentin Maclean, "Lily of Laguna" (Leslie-Stuart).
J. H. Squire's Celeste Octet, "Minuet Sicilienne."
- 6.30 :** Debroy Somers Band, "Mister Cinders" Selection (Ellis and Myers).
J. H. Squire's Celeste Octet, "The Piccaninnies Picnic" (Squire).
Organ—Quentin Maclean, "Little Dolly Daydream" (Leslie-Stuart).
- 6.45 :** Albert W. Ketelbey's Concert Orchestra, "The Clock and the Dresden Figures" (Ketelbey).
J. H. Squire's Celeste Octet, "Minuet in D" (Mozart, arr. Willoughby).
Albert W. Ketelbey's Concert Orchestra, "Wedgwood Blue."
Gil Dech Ensemble, "Valse Parisienne" (Roberts, arr. Barry).
- 7.0 :** News and market reports.
- 8.0 :** Chimes.
March—Orchestral Octet under direction Mr. Harold Baxter, "Sons of the Brave" (Bidgood).
Suite—Octet, "From the Countryside" (Coates), (a) "In the Meadows," (b) "Among the Poppies," (c) "At the Fair."
- 8.17 :** Baritone—Mr. Victor Baxter, "Live For To-day" (from "Maid of the Mountains") (Fraser-Simson).
Vocal duet—Mr. and Mrs. Victor Baxter, "Husbands and Wives" (from "The Maid of the Mountains") (Fraser-Simson).
Mezzo-soprano—Mrs. Victor Baxter, "I Couldn't, Could I?"
- 8.27 :** Instrumental—Barry Ingall's Hawaiian Quartet, (a) "Dream Kiss" (Lawrence), (b) "Pua Carnation" (Kawai); (c) "Wildflower."
- 8.37 :** Elocution—Mr. J. M. Clark, (a) "Christmas at Sea" (Stevenson), (b) "The Conversion of Scrooge" (Dickens).
- 8.50 :** Selection—Orchestral Octet, "Rose Marie" (Friml).
- 9.0 :** Evening weather forecast and announcements.
- 9.2 :** Band—H.M. Coldstream Guards, "Selection of Leslie Stuart's Songs."
Creator's Band, "Semiramide" (Rossini).
- 9.18 :** Instrumental—Barry Ingall's Hawaiian Quartet, (a) "Wreath for Princess" (Hopkin), (b) "Dreamy Hawaii" (Corbett), (c) "Aloha Chimes" (Berlin).
- 9.28 :** Mezzo-soprano—Mrs. Victor Baxter, "Just a Ray of Sunshine" (Squire).
Vocal duet—Mr. and Mrs. Victor Baxter, "Over There and Over Here" (from "Maid of the Mountains") (Fraser-Simson).
Baritone—Mr. Victor Baxter, "A Bachelor Gay" (from "Maid of the Mountains") (Fraser-Simson).
- 9.38 :** Characteristic piece—Orchestral Octet, "Whispering of the Flowers."
Duet for Cello and Violin—Miss Lalla Hemus and Mr. Harold Baxter, "Duetto Amoroso" (Novello).
Reverie—Orchestral Octet, "Meditation" (Glazounov); Morceau: "Sur L'Escalier" (Winter-Bottom).
- 9.57 :** Programme of dance music.
- 10.0 :** Foxtrots—Broadway Players, "I'm Following You."
Carl Fenton and His Orchestra, "Bless Her Little Heart."
Broadway Players, "Redhead" (Embry-Johnson).
Carl Fenton and His Orchestra, "That Wonderful Something Is Love" (Goodwin-Alter).
- 10.12 :** Waltz—Broadway Players, "All Day Long" (Cross-Preston-Stanley).
Foxtrots—Cova Cavaliers, "Mona" (Conrad-Mitchell-Gottler).
Carl Fenton and His Orchestra, "A Little Kiss Each Morning" (Harry Woods).
- 10.21 :** Vocal—F. Luther, C. Robinson, "Sweet Virginia" (C. Robinson).
- 10.24 :** Foxtrots—Cova Cavaliers, "How Long Must I Wait For You?"
New Yorkers, "Oriental Moonlight" (Seaman-Smolev).
Carl Fenton and His Orchestra, "Hello Little Sweetheart."
Pletcher's Eli Prom. Trotters, "That's Where You're Wrong."
- 10.36 :** Waltz—Broadway Players, "Shepherd's Serenade" (Grey-Stothart).
Foxtrots—Zenith Knights, "Congratulations" (Pinkard-Goetz-Green).
Pletcher's Eli Prom. Trotters, "I Like To Do Things For You" (Ager-Yellen).
- 10.45 :** Vocal—F. Luther, C. Robinson, "Down on the Old Plantation."
- 10.48 :** Foxtrots—Jack Montrose's Orchestra, "I'm So Tired of It All."
Broadway Players, "Should I Be Sorry" (Kapp-Eller-Johnson); "With You" (Berlin).
New Yorkers, "Under a Texas Moon" (Ray-Perkins).
- 11.0 :** Christmas Carols, by the 1YA Broadcasting Choir, under the direction of Mr. Len Barnes.
- 12.0 :** God save the King.

1YA, WELLINGTON (720 KILOCYCLES)—WEDNESDAY, DECEMBER 24

- 12.0 :** Chimes. Selected studio items.
- 3.30 and 4.30 :** Sporting results to hand.
- 5.0 :** Children's session.
- 6.0 :** Dinner music session.
New Mayfair Orchestra, "Sally" Selection (Kern).
Organ—Sandy Macpherson, "L'Heure Bleu" (Spolianski).
New Mayfair Dance Orchestra, "Hungarian Medley" (arr. Somers).
- 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."
- 6.30 :** Band of H.M. Coldstream Guards, "Florodora" selection (Stuart).
Organ—Sandy Macpherson, "In an Old World Garden" (Pepper).
Zonophone Salon Orchestra, "In the Shadows" (Finck).
- 6.45 :** Jack Hyllon and His Orchestra, "Memories of Paris" (Padilla).
Cello—Beatrice Harrison, "Melody" (Dawes).
New Mayfair Dance Orchestra, "Waltz Medley."
- 7.0 :** News session, market reports and sports results.
- 8.0 :** Chimes.
Overture—Salon Orchestra (Conductor Mr. M. T. Dixon) "Christmas Overture" (Coleridge-Taylor).
- 8.9 :** Soprano—Miss Kathleen Ferris, "Waltz Song" (from "Tom Jones").
- 8.13 :** Novelty Instrumental—Golden Hula Hawaiian Orchestra, (a) "Honolulu March" (trdtl.); (b) "Hula" (trdtl.).
- 8.19 :** Bass—Mr. J. H. Lee, "Reuben Ranzo" (Coates).
- 8.23 :** Suite—Salon Orchestra, "Dolls' House Suite" (Engelmann).
- 8.35 :** A humorous interlude by Mr. Jock Lockhart, 3YA's well known Scottish comedian.
- 8.45 :** Tenor—Mr. Will Hancock, "Gypsy Song" (from "Gypsy Love").
- 8.49 :** Contralto—Miss Hilda Chudley, (a) "The Virgin's Slumber Song" (Max Reger), (b) "A Legend" (Tchaikowsky).
- 8.54 :** Fantasia for piano and strings—Salon Orchestra, "Christmas Bells."
- 9.2 :** Weather report and station notices.
- 9.3 :** Soprano—Miss Kathleen Ferris, (a) "Nightingale of June" (Sander-son); (b) "Enough" (Samuels).
- 9.9 :** Humour—Mr. Will Yates, "Spring Broadcasts" (Anon.).
- 9.15 :** Hawaiian Instrumental—Golden Hula Hawaiian Orchestra, (a) "Hawaiian Love" (Lopez), (b) "Hilo March" (arr. Awai).
- 9.21 :** Bass—Mr. J. H. Lee, (a) "Why Shouldn't I?" (Kennedy-Russell), (b) "Chorus Gentlemen" (Lohr).
- 9.27 :** Selection—Salon Orchestra, "The Sacred Hour" (Ketelbey).
- 9.34 :** Further Scottish humour by Jock Lockhart.
- 9.44 :** Contralto—Miss Hilda Chudley, (a) "Wind Song" (Rogers), (b) "A Song at Dawn" (Brown).
- 9.49 :** Tenor—Mr. Will Hancock, (a) "Where the River Shannon Flows" (Russell), (b) "Golden Days" (from "Student Prince" (Romberg)).
- 9.55 :** Selection—Salon Orchestra, "The Messiah" (Handel).
- 10.0 :** Humour—Mr. Will Yates, "This Motor Age" (Yates).
- 10.6 :** Organ—Quentin MacLean, "Prelude" (Rosse); "Doge's March" (from "The Merchant of Venice") (Rosse).
- 10.14 :** Selection—Wellington Municipal Tramways Band, "Christmas Carols."
Tenor—Mr. Chas. Williams, "O Holy Night" (Adams).
Choruses—Lyric Quartet, "Old Folks at Home" (Foster); "Pack Up Your Troubles" (Powell).
Humorous duet—Messrs. Will Goudie and W. Binet Brown, "The Twins" (Slaughter).
Chorus—Lyric Quartet, "The Climate."
Selection—Wellington Municipal Tramways Band, "Christmas Carols."
Jubilee songs—Lyric Quartet, (a) "Pharaoh's Army"; (b) "In the Cane Break"; (c) "Noah's Ark."
Bass—Mr. W. Binet Brown, "Good Old English Gentleman" (Purday).
Chorus—Lyric Quartet, "Vive La Mout."
Selection—Band, "Community Songs."
Duet—Messrs. Will Goudie and Chas. Williams, "Here's to the Maiden" (Newton).
Sea Shanties—Lyric Quartet, "Billy Boy"; "Rio Grande"; "What Shall We Do With a Dunkin Sailor" (All arrgd. Terry).
Baritone—Mr. Will Goudie, "Arguing Wife" (Aitken).
Selection—Wellington Municipal Tramways Band, "Christmas Carols."
Choruses—Lyric Quartet, "John Brown's Body"; "The More We Are Together."
Bass—Mr. W. Binet Brown, "A Devonshire Wedding" (Phillips).
Chorus—Lyric Quartet—"The Stein Song" (Fenstad).
Band and Quartet—Wellington Municipal Tramways Band and Lyric Quartet—"Christmas Carols" (trdtl.), "Auld Lang Syne" (trdtl.).
- 11.55 :** Relay of Midnight Mass from St. Gerard's Redemptorist Church.
Preacher: Rev. Father T. McManus, C. S.S.R. Organist: Mr. H. Mount. Choirmaster: Mr. F. J. Oakes.

3YA, CHRISTCHURCH (980 KILOCYCLES)—WEDNESDAY, DEC. 24

- 12.0 :** Noon session—Gramophone recital.
- 4.25 :** Sports results.
- 5.0 :** Children's hour. "Uncle John."
- 6.0 :** Dinner session:
- 7.0 :** Royal Opera Orchestra, "Praeludium" (Jarnfeldt).
Cello—Pablo Casals, "Melody in F" (Rubinstein).
Waltz—Royal Opera Orchestra, "Eugénie Onegin" (Tchaikowsky).
Balalaika Orchestra, "Shining Moon" (Russian folk song).
- 6.15 :** Paul Whiteman's Orchestra, Suite of Serenades" (Herbert): (1) Spanish, (2) Chinese, (3) Cuban, (4) Oriental.
- Waltz—Philadelphia Orchestra, "Tales from the Vienna Woods."**
- 6.30 :** Royal Opera Orchestra, "Berceuse" (Jarnfeldt).
Cello—Pablo Casals, "Traumerei" (Schumann).
Male Quartet, The Rounders, "Chlo-e" (Kahn).
San Francisco Symphony Orchestra, (a) "Serenade" (Volkman), (b) "Flight of the Bumble Bee" (Rimsky-Korsakov).
- 6.45 :** Chicago Symphony Orchestra, (a) "Valse Triste" (Sibelius), (b) "Funeral March of a Marionette" (Gounod).
March—San Francisco Symphony Orchestra, "Marche Militaire."
- 7.0 :** News session.

- 7.30: Mr. Reg. Browning, Secretary of Canterbury Lawn Tennis Association, "Prospects of the New Zealand Lawn Tennis Championships."
- 8.0: Chimes. Popular Programme:
Overture—Berlin State Opera House Orchestra, "The Barber of Seville."
- 8.8: Salon Quartet—"De Ole Banjo" (Scott Gatty).
Baritone—Mr. J. Graham Young, "Up from Somerset" (Sanderson).
- 8.15: Instrumental—Studio Octet (Conductor Harold Beck), "Dream of Christmas" (Ketelbey).
- 8.22: Soprano—Miss Corrie Aslin, "Carmena" (Lane Wilson).
Duet—Salona Duo, "Back to the Heather" (Kern).
Contralto—Miss Dulcie Mitchell, "My Dear Soul" (Sanderson).
- 8.31: Instrumental—Studio Octet and Miss Bessie Pollard at the piano, "Melodies of Grieg" (arr. Beck).
- 8.42: Tenor—Mr. H. J. Francis, "Pale Moon" (K. Logan).
8.46: Viola—Lionel Tertis, "Sonata in F" (Handel).
- 8.50: Instrumental—Studio Octet, "Christmas Suite" (Benoit Hollander).
- 9.3: Weather forecast and station notices.
- 9.5: Symphony—Studio Octet, "Pastoral Symphony" from "Messiah."
- 9.9: Baritone—Mr. J. Graham Young, "A Dinder Courtship" (Coates).
Soprano and tenor—Salon Duo, "The Chocolate Soldier" (O. Strauss).
- 9.15: Selections—Regal Military Band, (a) "Friends Forever" (Lacalle), (b) "Hail to the Flag" (Lacalle).
- 9.21: Contralto—Miss Dulcie Mitchell, (a) "If I Might Come to You" (Squire), (b) "Country Folk" (Brahe).
- 9.25: Novelty—Never Never Players, (a) "Father Christmas at Home and His Workshop" (Grey), (b) "Christmas Eve" (Grey).
- 9.31: Novelty—Vibraphone Duo, (a) "Telling It to the Daisies" (Warren); (b) "You've Brought a New Kind of Love to Me" (Norman), (c) "Carry Me Back to Old Virginny" (Bland), (d) "My Old Kentucky Home" (Poster).
- 9.41: Soprano—Miss Corrie Aslin (with violin obligato by Miss I. Morris), "By the Waters of Minnetonka" (Lieurance).
- 9.44: Organ—Clarence Raybould, "Medley of Christmas Hymns and Carols."
- 9.52: Tenor—Mr. H. J. Francis, (a) "Indian Serenade" (Voerji); (b) "Come Love, the Long Day Closes" (Clara Edwards).
Quartet—Salon Quartet, "De Ringtailed Coon" (Scott Gatty).
- 9.59: Studio Octet, "Bells o' Somerset" (Hurst).
- 10.4: Dance music until 11 p.m.
Foxtrots—Arcadians Dance Orchestra, "Always" (Ruby, Jerome).
George Olsen and His Music, "Sweet Nothings of Love."
Arcadians Dance Orchestra, "At the End of the Lonesome Trail" (Ruby, Perkins).
Ted Weems' Orchestra, "Slappin' the Bass" (Phillips).
- 10.12: Waltz—Regent Club Orchestra, "Underneath the Russian Moon."
Foxtrots—Johnny Hamp's Kentucky Serenaders, "Lady Luck."
Victor Arden, Phil Ohman, and Their Orchestra, "Why?"
- 10.21: Vocal—Frank Luther, "The Moon is Low" (Freed).
- 10.24: Foxtrots—New Mayfair Dance Orchestra, "She's My Slip of a Girl."
Leo Reisman and His Orchestra, "Mia Cara."
Victor Arden, Phil Ohman, and Their Orchestra, "It's You I Love" (Davis, Coots, Swanstrom).
- 10.33: Waltzes—Regent Club Orchestra, "Dear, When I Met You."
Rudy Vallee and His Connecticut Yankees, "Sweet Susanne."
Foxtrots—New Mayfair Dance Orchestra, "Spread a Little Happiness."
Nat Shilkret and His Orchestra, "May I Say 'I Love You'?"
- 10.45: Vocal—Johnny Marvin, "Lucky Me, Lovable You" (Yellen, Ager).
- 10.48: Foxtrots—The High-Hatters, "Singin' in the Bathtub."
New Mayfair Dance Orchestra, "In An Old-World Garden."
Nat Shilkret and His Orchestra, "Cross Your Fingers."
The High-Hatters, "Duke of Ka-ki-ak" (Leslie, Donaldson).
- 11.0: Selected recordings of Christmas music.
- 11.55: Rebroadcast of 2YA, Wellington, of midnight Mass from St. Gerard's Redemptorist Church, Hawker Street, Wellington. Organist, Mr. H. Mount; Choirmaster, Mr. Frank J. Oakes.

4YA, DUNEDIN (650 KILOCYCLES)—WEDNESDAY, DECEMBER 24.

- 12.0: Selected gramophone items.
- 4.0: Sporting results.
- 5.0: Chimes. Children's hour, conducted by Big Brother Bill.
- 6.0: Dinner music.
Dajos Bela Orchestra, "Pique Dame" Fantasia (Tchaikowsky).
Grand Symphony Orchestra, "Polonaise No. 1 in A. Op. 40."
Dajos Bela Orchestra, "Dynamiden Waltz" (Josef Strauss).
- 6.14: Tacet.
- 6.15: Grand Symphony Orchestra, "Hungarian Dances, Nos. 5 and 6."
Edith Lorand's Orchestra, "Myosotis Waltz" (Waldteufel).
Parlphone Dance Orchestra, "The Skaters" (Waldteufel).
- 6.29: Tacet.
- 6.30: Orchestra of the Opera Comique, Paris, "Ballet Egyptien, Parts 1 to 4."
Cello—Gregor Piatigorsky, "The Swan" (Saint-Saens).
- 6.44: Tacet.
- 6.45: Edith Lorand's Orchestra, "The Merry Widow" Selection.
Grand Symphony Orchestra, "Scherzo from Midsummer Night's Dream" (Mendelssohn).
- 6.57: Tacet.
- 7.0: News session.
- 7.15: Talk—Mr. A. A. Hume, under auspices of 4YA Primary Productions Committee, "Practical Points in Haymaking."
- 8.0: Overture—Frank Westfield's Orchestra, "Classica" (arr. Tilsley).
- 8.9: Soprano—Miss A. M. Brook, (a) "Fair Spring is Returning" (Saint-Saens); (b) "Cradle Song" (Schubert); (c) "Saudinauchen."
- 8.19: Instrumental—4YA Trio, "2nd and 3rd Movements from First Trio"

- 8.29: Recitals—Miss Anita Bowler, (a) "King John's Christmas" (A. A. Milne); (b) "At the Baths" (Anon).
- 8.40: Tenor—Mr. W. Harrison, (a) "Echo" (Somerset); (b) "A Resolve" (Fontenailles); (c) "Because I Love You Dear" (Barry).
- 8.50: Instrumental—4YA Trio, (a) "Song Without Words" (Mendelssohn); (b) "Scherzo in D" (Mendelssohn).
- 9.0: Weather report and station notices.
- 9.2: Baritone—Mr. R. W. Fox, (a) "For the Green" (Loehr); (b) "Let us Forget" (White); (c) "The Fishermen of England" (Phillips).
- 9.12: Instrumental—4YA Trio, "Nocturne in E Flat" (Chopin); "Polonaise" (Thomas); "Ave Maria" (Gounod); "Serenade" (Arensky).
- 9.25: Contralto—Miss Betty Hamilton, (a) "Dawn Gentle Flower" (Bennet); (b) "Golden Slumber Kiss Your Eyes" (Tradl); (c) "Give Thanks and Sing" (Warren).
- 9.35: Dance session—"Edison Bell."
Foxtrots—Alfredo and His Band, "Now I'm in Love" (Shapiro, Yellen); "Singin' in the Bathtub" (Magidson, Washington, Cleary); "Am I Blue?" (Akst, Clarke).
Waltz—Harry Hudson's Melody Men, "Sleepy Valley."
Foxtrots—Alfredo and His Band, "My Love Parade" (Grey, Schertzinger); "Smiling Irish Eyes" (Ruby, Perkins).
Tango—Marcu and His Orchestra, "Do You Still Love Me?"
Vocal—G. H. Elliott, "Plain Chocolate" (Lutzen).
One-step—Harry Hudson's Melody Men, "Tell Me, Mother" (Yvain).
Foxtrots—Harry Hudson's Melody Men, "Happy Days are Here Again" (Yellen, Ager); "O, Ya, Ya!"
Waltz—Harry Hudson's Melody Men, "Marie" (Berlin).
Foxtrots—The Plaza Band, "Cute Little Flat."
Harry Hudson's Melody Men, "Lucky Me, Lovable You."
Vocal—G. H. Elliott, "Sentimental Luke" (Lutzen).
Tango—Motel and His Orchestra, "In the Twilight."
Foxtrots—Harry Hudson's Melody Men, "Mickey Mouse"; "Building a Nest for Mary" (Rose, Greer); "Cuckoo in the Clock."
Waltz—Alfredo and His Band, "Let Me Have My Dreams."
- 10.30: Foxtrots—Harry Hudson's Melody Men, "A Bench in the Park."
Alfredo and His Band, "Fancy You Falling for Me"; "My Fate is in Your Hands" (Razaf, Waller).
Waltz—Radio Melody Boys, "What Have I Done?" (Rotter, Jurmann).
Tangos—Marcu's Roumanian Orchestra, "Adieu, Venise"; "Do You Still Love Me?"
Orlando and His Argentine Tango Orchestra, "Garufa."
Vocal—Randolph Sutton, "We're Uncomfortable" (Wallace).
Foxtrots—The Blue Jays, "By the Bend of the River."
Radio Melody Boys, "A Little Old Cottage."
The Blue Jays, "I'm Following You" (Dreyer, Macdonald).
Harry Hudson's Melody Men, "Handsome Gigolo."
Waltz—Alfredo and His Band, "Silv'ry Moon."
Alfredo and His Band, "Molly" (Goulding, Dougherty).
Tangos—Marcu's Roumanian Orchestra, "Argentina."
Orlando and His Argentine Tango Orchestra, "Gente Bacana."
Vocal—Randolph Sutton, "Back to Gay Paree" (Stanley, Neville).
Foxtrots—Alfredo and His Band, "Cryin' for the Carolines" (Lewis, Young); "The Sunshine of Marseilles" (Gilbert, Nicholls); "Blondy" (Rubila).
- 11.30: Special recital of Selected Christmas Recordings.
- 12.0: Midnight chimes and God save the King.

2YB, NEW PLYMOUTH (1230 KILOCYCLES)—WEDNESDAY, DEC. 24

- 6.30: Children's session.
- 7.30: News, markets and information.
- 8.0: Studio concert.

Thursday, December 25

1YA, AUCKLAND (900 KILOCYCLES)—THURSDAY, DECEMBER 25.

- 9.0: Children's Christmas session.
- 11.0: Relay—Divine Service from St. Matthew's Church. Preacher: Canon C. H. Grant Cowen. Organist: Mr. J. H. Philpott.
- 3.0: Selected gramophone recordings.
- 6.0: Dinner session.
International Novelty Orchestra, "Emperor" (J. Strauss).
Vienna Philharmonic Orchestra, "Ruins of Athens" (Beethoven).
Organ—Sydney Gustard, "Poupee Valsante" (Poldini).
International Novelty Orchestra, "Gold and Silver" (Franz Lehar).
- 6.15: The Palladium Orchestra, "The Grasshoppers' Dance" (Bucalossi).
Vienna Philharmonic Orchestra, "Turkish March" (Mozart).
Band of H.M. Coldstream Guards, "Morning, Noon and Night."
The Rhythmic Eight, "Neapolitan Nights" (Zamecnik).
- 6.30: The Palladium Orchestra, "La Siesta."
Zonophone Salon Orchestra, "Love's Garden of Roses" (Haydn-Wood).
Organ—Sydney Gustard, "Un Peu D'Amour" (Silesu).
Zonophone Salon Orchestra, "Mighty Lak a Rose" (Nevin).
- 6.45: Marek Weber and His Orchestra, "Faust" Selection.
Band of H.M. Coldstream Guards, "Pique Dame."
- 7.0: Church Service if available, followed by Relay from Albert Park of concert by Congress Hall Band, under the conductorship of Mr. T. Paice.
- 9.30 (approx.): Gramophone recital from the Studio.
- 10.0: God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—THURSDAY, DECEMBER 25.

- 10.0 : Special Christmas service from the studio, conducted by the Rev. W. G. Carpenter. Address by Rev. W. R. Hibbert.
- 3.0 : Chimes. Official Opening of the Porirua Mental Hospital Radio Installation by the Hon. A. J. Stallworthy, Minister of Health, from Auckland by means of land-line to Wellington.
- 3.10 : Selected studio items.
- 6.0 : Dinner music session.
Bohemian Orchestra, "Love and Life in Vienna" (Komzak).
Organ—G. T. Pattman, "Alice, Where Art Thou?" (Traditional).
Bruno Walter and Berlin Philharmonic Orchestra, "Roses of the South."
- 6.14 : Band of H.M. Grenadier Guards, "Ivanhoe" Selection (Sullivan).
Edith Lorand's Orchestra, "Venetian Barcarolle" (Leoncavallo).
Bohemian Orchestra, "Destiny Waltz" (Baynes).
- 6.30 : Edith Lorand's Orchestra, "La Serenade" (Metra).
Plaza Theatre Orchestra, "A La Gavotte" (Finck).
Dajos Bela Orchestra, "Schatz Waltz" (Strauss).
H. J. Squire's Celeste Octet, "La Serenata" (Braga).
- 6.45 : Dajos Bela Orchestra, "Moonlight on the Alster" (Petras).
Plaza Theatre Orchestra, "Minuet" (Finck).
Organ—G. T. Pattman, "Cinderella Waltz" (Pattman).
J. H. Squire's Celeste Octet, "Serenade" (Titi).
- 7.0 : Relay of service from Wesley Church, Taranaki Street. Preacher, Rev. T. R. Richards.
- 8.0 : Chimes. Overture—2YA Orchestra (Conductor, Signor A. P. Truda), "Christmas Song" (Haydn).
- 8.9 : Soprano—Miss Jeanette Briggs, L.A.B., (a) "Medrigal" (Chaminade); (b) "Almond, Wild Almond" (Graham Peel).
- 8.14 : Bells—W. E. Jordan, "Fantasia on Popular Songs."
- 8.20 : Bass—Mr. J. M. Caldwell, (a) "An Old French Carol" (Liddle); (b) "Old Clothes and Fine Clothes" (Shaw).
- 8.25 : Selection—Orchestra, "The Jewels of the Madonna" (Ferrari).
- 8.35 : Male chorus—Associated Glee Clubs of America, (a) "John Peel" (arr. Andrews); (b) "Adeste Fideles" (arr. Andrews).
- 8.43 : Tenor—Mr. Harry Brucey, (a) "I Attempt from Love's Sickness to Fly" (Purcell); (b) "Serenade" (Schubert).
- 8.48 : Selection—2YA Orchestra, (a) "Polonaise in A" (Chopin); (b) "Adagio" (Mendelssohn).
- 8.56 : Weather report and station notices.
- 9.0 : Piano—Miss Edith Rait, "Etude in E Major" (Chopin); "Etude in C Sharp Minor" (Chopin).
- 9.10 : Soprano—Miss Jeanette Briggs, "L.A.B., 'Solweig's Song' (Grieg).
- 9.14 : Organ—Charles Saxby, "Raymond Overture" (Thomas).
- 9.20 : Bass—Mr. J. M. Caldwell, (a) "Vulcan's Song" (Gounod); (b) "When Lights Go Rolling Around the Sky" (Ireland).
- 9.25 : Selection—Orchestra, (a) "Polonaise" (from "Christmas Eve Suite") (Rimsky-Korsakov); (b) "Angelus" (Massenet).
- 9.33 : Duet—Miss Jeanette Briggs and Mr. Harry Brucey, "Maying" (Smith).
- 9.37 : Band—H.M. Coldstream Guards, "Poet and Peasant" Overture.
- 9.45 : Tenor—Mr. Harry Brucey, (a) "The Asra" (Rubinstein); (b) "On Wings of Song" (Mendelssohn).
- 9.50 : Choral—Royal Choral Society, (a) "And the Glory" (Handel); (b) "Amen Chorus" (Handel).
- 9.56 : Selection—Orchestra, "Chapel Chimes" (Greenwood).
- 10.1 : God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—THURSDAY, DECEMBER 25.

- 9.0 : Children's Christmas Morning Session, conducted by Aunt Pat and assisted by 3YA Aunts and Uncles.
- 3.0 : Selected gramophone recordings.
- 6.0 : Dinner session.
New Mayfair Orchestra, "Lilac Time" (Schubert—arrgd. Clutsam).
San Francisco Symphony Orchestra, (a) "Serenade" (Moszkowski); (b) "Anbade" (Auber).
- 6.15 : Creatore's Band, "Semiramide" Overture (Rossini).
New Light Symphony Orchestra, "Spanish Serenade" (Bizet); "Narcissus" (Nevin).
- 6.30 : San Francisco Symphony Orchestra, "Liebeslied" (Kreisler); "Valse de Concert" (Glazounov).
New Light Symphony Orchestra, "Spring Song" (Mendelssohn).
- 6.45 : National Symphony Orchestra, "William Tell" Overture (Rossini).
New Light Symphony Orchestra, "Spanish Dance, No. 1" (Moszkowski).
- 7.0 : Relay of service from the Christchurch Anglican Cathedral. Full Choral Evensong and Christmas Carols. Organist and Musical Director, Dr. J. C. Bradshaw.
- 8.0 : (approx.) Suite—New Queen's Hall Light Orchestra, "Petite Suite de Concert" (Coleridge-Taylor).
- 8.15 : Baritone—Mr. Rex Harrison, (a) "Nazareth" (Gounod); (b) "Waves" (Montague Phillips); (c) "Star of Eve" (from "Tannhauser" (Wagner); (d) "Vulcan's Song" (Gounod).
- 8.29 : Harp—Mr. H. G. Glaysher, (a) "Watching the Wheat" (Thomas); (b) "Echoes of the Waterfall" (Thomas).
- 8.41 : Dickens Christmas Recital—Mr. J. J. Flewelling, (a) "Uncle Podger Hangs the Christmas Decorations" (M.S.), (b) "Tony Weller's Advice on Widders" (Dickens); (c) "Micawber's Advice to Young David Copperfield" (Dickens).
- 8.51 : Selection—Marek Weber's Orchestra, "Lehariana" (Geiger).
- 8.59 : Weather forecast and station notices.
- 9.1 : Selection—Hermann Finck's Orchestra, "Christmas Memories."

- 9.9 : Soprano—Miss Cicely Audibert, (a) "Canterbury Bells" (Carew); (b) "Nymphs and Fauns" (Bemberg); (c) "Wild Geese" (de Leath); (d) "Rosa Resurgit" (Liza Lehmann).
- 9.21 : Organ—Sandy Macpherson, "L'Heure Bleu" (Spolianski); "In an Old World Garden" (Pepper).
Organ—Spencer Shaw, "Salut d'Amour" (Elgar); "Simple Aveu."
- 9.33 : Tenor—Mr. Jas. Shaw, (a) "Comfort Ye, My People" (from "The Messiah") (Handel); (b) "The Star of Bethlehem" (Adams); (c) "My Dreams" (Tosti).
- 9.45 : Selections—Eastbourne Municipal Band, "All on a Christmas Morning" (Amers); The Bombardiers, "Hungarian Dances, Nos. 5 and 6." Marches—National Military Band, (a) "El Capitan" (Sousa); (b) "Washington Post" (Sousa).
- 10.0 : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—THURSDAY, DECEMBER 25.

- 9.0 : Santa Claus Hour, conducted by Aunts, Uncle and Big Brother Bill.
- 10.30 : Relay from Knox Church, Combined Christmas Church Service, conducted by President of Council of Christian Congregations, Rev. E. S. Tuckwell, B.A., assisted by the local ministers.
- 3.0 : Selected gramophone recordings.
- 6.0 : Dinner session.
Dajos Bela Orchestra, "I Pagliacci" selection (Leoncavallo).
Frank Westfield's Orchestra, "The Druid's Prayer" (Dyson).
Orchestra of the Opera Comique, Paris, "Carmen Overture" (Bizet).
- 6.15 : Edith Lorand's Orchestra, "Tales of Hoffman—Fantasia" (Offenbach).
Grand Symphony Orchestra, "L'Arlésienne Suite No. 1" (a) "Minuet"; (b) "Adagietto" (Bizet).
- 6.30 : Dajos Bela Orchestra, "La Traviata" Fantasia (Verdi).
Grand Symphony Orchestra, "L'Arlésienne Suite No. 2" (a) "Intermezzo"; (b) "Farandole" (Bizet).
- 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."
- 7.0 : Carol Service, conducted by Big Brother Bill.
- 8.0 : Special Studio Christmas Concert, arranged and conducted by Mr. Ernest Drake.
Overture—Milan Symphony Orchestra, "Semiramide" (Rossini).
- 8.13 : Vocal Octet, The Choir, (a) "Adeste Fideles" (Oakley); (b) "Silent Night" (Dick).
- 8.22 : Piano—Mrs. Drake, "Noel" (Gardener).
- 8.26 : Contralto—Miss D. Allan, "The Holy Child" (Marin).
- 8.30 : Vocal Octet, The Choir, "Good King Wenceslas" (trdtl.).
- 8.34 : Bass—F. Kershaw, "Nazareth" (Gounod).
- 8.39 : Selection—Squire's Celeste Octet, "Memories of Mendelssohn."
- 8.47 : Vocal Octet—The Choir, (a) "The First Noel" (trdtl.); (b) "See Amid the Winter Snows" (Goss); (c) "Joy Fills Our Inmost Heart."
- 8.57 : Recital—Joyce Hould, "Christmas at Sea."
- 9.1 : Weather report and station notices.
- 9.3 : Cello—F. Drake, "Largo" (Handel).
- 9.8 : Tenor—Mr. E. Drake, (a) "Comfort Ye" (Handel); (b) "Every Valley" (from "Messiah").
- 9.13 : Selection—Herman Finck's Orchestra, "Schubertiana" (Schubert).
- 9.29 : Soprano and Chorus—Master Lex MacDonald and Choir, "I Waited For The Lord" (Mendelssohn).
Bass—W. B. Lambert, "Carol Singer" (Bennet).
- 9.38 : Violin—Joseph Szigetti, "Le Printemps" (Milhand).
- 9.42 : Mezzo-soprano—E. Shepard, "Legende" (Tschalkowsky).
- 9.45 : Recitation—Joyce Hould, (a) "The Oven" (T. Harding); (b) "New Year's Eve 1913" (Bottomley).
- 9.50 : Contralto—Miss M. Pratt, "Jesus of Nazareth" (Hamblen).
- 9.54 : Chorus—The Choir, (a) "In This Hour of Softened Splendour" (Pinsuti); (b) "Goodnight Beloved" (Pinsuti).
- 10.1 : God save the King.

Friday, December 26**1YA, AUCKLAND (900 KILOCYCLES)—FRIDAY, DECEMBER 26.**

- 11.45 : Relay—Results of Auckland Racing Club's meeting at Ellerslie race-course, interspersed with gramophone items from the studio.
- 5.0 : Children's session, conducted by Uncle Nod and Aunt Jean.
- 6.0 : Dinner session.
Metropolitan Symphony Orchestra, "Lilac Time Selection."
Russian Imperial Trio, "Because" (D'Hardelet).
Bidgood's Dance Band, "Popular Musical Comedy Waltz Medley."
- 6.15 : Salon Orchestra, "Italian Nights" (Roberts).
Symphony Orchestra, "Morris Dance" (from "Henry VIII") (German).
Orchestra with organ—"Demande Et Reponse" (Coleridge-Taylor).
Symphony Orchestra, "Shepherds' Dance" (from "Henry VIII").
Orchestra with organ—"Portia Intermezzo" (from "Merchant of Venice" (Rosse).
- 6.30 : Harry Jacobs and His Palais Orchestra, "The Earl and the Girl."
Salon Orchestra, "The Enchanted Lake" (Tschalkowsky).
Russian Imperial Trio, "Liebeslied" (Kreisler).
- 6.45 : Stoll Theatre Orchestra, "The Grasshoppers' Dance" (Bucalossi).
Band of H.M. Life Guards, "Ruy Bias Overture" (Mendelssohn).
Stoll Theatre Orchestra, "The Phantom Brigade" (Myddleton).
Bidgood's Dance Band, "Popular Classical Waltz Medley" (Arrgt.).
- 7.0 : News and market reports.

- 8.0 : Overture—Kaufman's Orchestra, "The Gipsy Baron" (Strauss).
 8.9 : Presentation of Christmas Pantomime by the "Pantomimists," assisted by Reg. Morgan and His Orchestra, and Mr. Jock Lockhart, 3YA Scottish comedian, "Cinderella Up-to-Date," arranged and adapted by Eric F. B. Waters and L.C.B.
 9.30 : Programme of Dance Music by Reg. Morgan and His Orchestra.
 11.0 : God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—FRIDAY, DECEMBER 26.

- 3.0 : Chimes. Selected studio items.
 3.30 and 4.30 : Sporting results to hand.
 5.0 : Children's session, conducted by Uncle Jim and the Story Book Lady.
 6.0 : Dinner music session.
 Band of H.M. Grenadier Guards, "Sir Harry Lauder Medley."
 J. H. Squire's Celeste Octet, "Second Movement from Symphony Pathétique" (Tchaikowsky, arr. Robertson).
 Modern Dance Players, "Amoretten Tanze" (Gungl).
 6.15 : Court Symphony Orchestra, "The Windmill Man."
 Organ—Stanley Macdonald, "The Rosary" (Nevin).
 Symphony Orchestra, "When the Lemons Bloom" (Strauss).
 6.30 : Plaza Theatre Orchestra, "The Three Bears" (Coates).
 Symphony Orchestra, "Doctrinen" (Strauss).
 Continental Novelty Orchestra, "Las Lagarteranas."
 6.45 : B.B.C. Wireless Military Band, "Le Reve Passe" (Krier and Helmer).
 J. H. Squire's Celeste Octet, "Scene De Ballet."
 Organ—Stanley Macdonald, "La Rosita" (Dupont).
 Continental Novelty Orchestra, "Los Claveles De Sevilla."
 7.0 : News session, market reports and sports results.
 8.0 : Chimes.
 Note: This programme is subject to interruption to permit of a relay of a Sound Film Feature from the Majestic Theatre.
 Overture—2YA Orchestra (Conductor Signor A. P. Truda) "Hibernia Fantasia" (Atkin).
 Musical Comedy Selection—Orchestra, "Lola From Berlin" (Danks).
 Soprano—Miss Phyllis Leighton, (a) "Alice Blue Gown" (from "Irene") (Tierney), (b) "Irene" (from "Irene") (Tierney).
 Baritone—Mr. Ken Rigby, (a) "Absent" (Metcalfe), (b) "Smilin' Through" (Penn).
 Selection—Orchestra, "Snack in Bars" (Egerer).
 Descriptive selection—"Nigger in the Farm Yard" (Lovenberg).
 Humour—Mr. F. N. Hastings, "Eden in U.S.A." (Thomas).
 Accordion—Mr. G. McGuigan, (a) "Medley of Scotch Airs" (Own arrgt.), (b) "Medley of Irish Airs" (Own arrgt.).
 Weather report and station notices.
 Soprano—Miss Phyllis Leighton, (a) "You're Always in My Arms" (from "Rio Rita") (Tierney and McCarthy), (b) "Your Fate is in My Hands" (Razaf-Waller).
 Humour—Mr. F. N. Hastings, "The Longshoreman" (Caine).
 Novelty Foxtrot—Orchestra, "Toppling Over" (Stanley).
 Novelty—Orchestra, "Silence and Fun" (Mullen).
 Baritone—Mr. Ken Rigby, "Tip-Toe Thru the Tulips" (Dubin-Burke), "Painting the Clouds With Sunshine" (Dubin-Burke).
 9.30 : Dance programme.
 One-step—Jack Hylton and His Orchestra, "Moscow" (Evans).
 Foxtrots—"My Wife Is On a Diet" (Tobias-Bennett).
 The High Hatters, "The Web of Love" (Cowan-Titsworth).
 Charles Dornberger and His Orchestra, "Campus Capers."
 Johnny Hamps Kentucky Serenaders, "Sunny Side Up."
 The High Hatters, "I'm in Love With You."
 9.48 : Waltzes—The Troubadours, "Alice Blue Gown" (McCarthy-Tierney).
 Nat Shilkret and His Orchestra, "Dream Lover."
 10.3 : Foxtrots—Nat Shilkret and His Orchestra, "Broadway Baby Dolls," "You Wouldn't Fool Me, Would You."
 Rudy Valle and His Connecticut Yankees, "A Little Kiss Each Morning" (Woods).
 Henry Bussee and His Orchestra, "After the Clouds Roll By" (Clare-Levant).
 10.1 : Waltzes—Nat Shilkret and Orchestra, "Until The End."
 Jack Hylton and His Orchestra, "Tondeleyo" (Gay).
 Leo Reisman and His Orchestra, "My Sweetest Than Sweet."
 Nat Shilkret and His Orchestra, "Wishing and Waiting For Love" (Clarke-Akst).
 10.30 : Foxtrots—Jack Hylton and His Orchestra, "Jollity Farm" (Sarony).
 The High Hatters, "Aren't We All."
 Jack Hylton and His Orchestra, "On Her Doorstep Last Night" (Hargreaves-Damerall-Tilsley).
 The High Hatters, "You've Got Me Picking Petals Off of Daisies" (De Sylva-Brown-Henderson).
 10.45 : Waltz—The Troubadours, "Beautiful Lady" (McLennan-Caryll).
 Foxtrots—The High Hatters, "Nobody's Using It Now."
 Johnny Johnson and His Orchestra, "Just You, Just Me."
 Waltz—Nat Shilkret and Orchestra, "Love Me."
 10.57 : Foxtrots—Jack Hylton and His Orchestra, "Yours Sincerely."
 The High Hatters, "My Love Parade" (Grey-Schertzinger).
 Ted Weems and His Orchestra, "Sophomore Prom."
 Johnny Johnson and His Statler Pennsylvanians, "You're Responsible" (Clare-Levant).
 Ted Weems and His Orchestra, "I Don't Want Your Kisses" (If I Can't Have Your Love) (Fisher-Broones).
 11.0 : God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—FRIDAY, DECEMBER 26.

- 2.30 : Relay from Wilding Park of the New Zealand Lawn Tennis Championships.
 5.0 : Children's hour, conducted by "Ladybird and Uncle Frank."
 6.0 : Dinner music session.
 Overture—Berlin State Opera Orchestra, "Mignon" (Thomas).
 Grand Symphony Orchestra, "Tales of Hoffman—Barcarolle."
 6.15 : Edith Lorand's Orchestra, "Faust" Fantasia (Gounod); "Wedding of the Winds" (Hall).
 6.30 : Berlin State Opera Orchestra, "Italiana in Algeria" (Rossini).
 Cello—Orabio de Castro, "Nocturne in E Flat" (Chopin).
 6.45 : Grand Symphony Orchestra, "Fra Diavolo" (Auber); "Tales of Hoffman Entr'acte and Minuet" (Offenbach).
 7.0 : News session.
 8.0 : Chimes. Popular and dance programme.
 Overture—Paul Godwin's Orchestra, "Birthday Serenade" (Linke).
 8.4 : Tenor and chorus—Mr. Russell Sumner and Melodious Quartets, "The Call of the Sea" (from "No, No, Nanette") (Youmans).
 Soprano and tenor—Melodious Duo, "I've Confessed to the Breeze."
 8.9 : Valse—Studio Octet (Harold Beck, Conductor), "Artists' Life."
 8.18 : Mezzo-contralto and bass—Melody Duo, "I Want to be Happy."
 Soprano and chorus—Miss Frances Hamerton and Quartet, "No, No, Nanette" (Youmans).
 8.24 : Instrumental—Studio Octet, (a) "Parade of the Tin Soldiers" (Jessel); (b) "Spanish Dance" (Moskowski).
 8.31 : Soprano and tenor with chorus—Miss Frances Hamerton and Mr. Russell Sumner and Quartet, "Tea for Two" (Youmans).
 Mezzo-contralto and bass—Millicent Jennings and Mr. T. D. Williams; Chorus, Melodious Quartet, "Finale" (from "No, No, Nanette").
 8.39 : Humour—Mr. H. Instone, "How Ikey Won the War" (Instone).
 8.45 : Instrumental—Studio Octet, (a) "Musical Comedy Selection" (arrgd. Grant); (b) "Wildflower" (Stothart).
 8.52 : Bass—Mr. T. D. Williams, "The Other Chap" (from "Sunshine Girl").
 Soprano and chorus—Miss Frances Hamerton and Quartet, "Here's to Love" (from "Sunshine Girl") (Rubens).
 9.2 : Weather forecast and station notices.
 9.4 : Studio Octet, "Serenade" (Pierne).
 9.8 : Mezzo-contralto and bass—Miss Millicent Jennings and T. D. Williams, "Love" (from "Sunshine Girl") (Rubens).
 Soprano—Miss Frances Hamerton, "O, Time, Time" (Monckton).
 9.14 : Humour—Mr. H. Instone, "The Man from Maoriland."
 9.18 : Studio Octet, (a) "You Were Meant for Me" (Brown); (b) "The Love Parade" (Schertzinger).
 9.24 : Mezzo-contralto—Miss Millicent Jennings, "A Quaker Girl" (Monckton).
 Tenor and chorus—Mr. Russell Sumner and Quartet, "Come to the Ball."
 9.30 : Dance music until 11 p.m.
 Foxtrots—Broadway Nitelites, "You're the Cream in My Coffee."
 Denza Dance Band, "A Lane in Spain" (Lewis-Lombardo).
 Benson All-Star Orchestra, "To Know You is to Love You."
 Foxtrot—The Picadilly Players, "The Five O'Clock Girl."
 Vocal—Will Fyffe, "She was the Belle of the Ball" (Will Fyffe).
 9.45 : Foxtrots—The Picadilly Players, "The Five O'Clock Girl."
 Rhythmic Troubadours, with vocal refrain, "Revolutionary Rhythm" (Davis-Coots-Spicer).
 Ipana Troubadours, "'S Wonderful" (Gershwin); "I'll Get By" (As Longs as I Have You) (Turk-Ahlert).
 Debroy Somers Band, "Without You, Sweetheart."
 Paul Specht and Orchestra, Vocal Trio, "Hittin' the Ceiling."
 10.3 : Vocal—Charles Lawman and Novelty Accompaniment, "Oh! Sweetheart, where are You To-night?" (Davis-Coots).
 Foxtrots—Rudy Vallee, "Outside" (Flynn).
 Denza Dance Band, "One Summer Night" (Coslow-Spicer).
 Swain's Cafe Royal Band, "It Goes Like This, That Funny Melody" (Caesar-Friend).
 10.15 : Waltz—Selvin's Orchestra, "Ramona" (Wayne-Gilbert).
 Foxtrots—Bernie's Orchestra, "I Want to Meander in the Meadow."
 Midnight Revellers, "The Moonlight March."
 Bernie's Orchestra, "Where the Bab-bab-babbling Brook."
 Paul Specht and Orchestra, with vocal refrain, "Sing a little Love Song" (Gottler-Mitchell-Conrad).
 10.30 : Vocal—Charles Lawman and Novelty Accompaniment, "When We Get Together in the Moonlight" (Rose-Ryan and Volinsky).
 Waltz—The Cavaliers, "Sleepy Valley" (Hanley-Sterling).
 Foxtrots—Lombardo's Royal Canadians, "You Made Me Love You."
 Rhythmic Troubadours, with vocal refrain, "When the Real Thing Comes Your Way" (Spicer-Coslow).
 Lombardo's Royal Canadians, "You Belong to Me, I Belong to You" (Lombardo-Newman).
 Midnight Revellers, "Sweetheart's Holiday."
 10.48 : Waltzes—The Cavaliers, "Recollections" (Rapee-Pollack).
 Swain's Band, "Sleep, Baby, Sleep" (Tucker-Schuster).
 Foxtrot—Selvin's Orchestra, "In My Bouquet of Memories."
 Waltz—Swain's Band, "Heigh Ho! Everybody, Heigh Ho!"
 11.0 : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—FRIDAY, DECEMBER 26.

- 12.0 : Results of Dunedin Jockey Club's summer meeting, interspersed with gramophone items.
 5.0 : Chimes. Children's hour, conducted by Aunt Sheila.

- 6.0 : Dinner music.
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."
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 session.
- 8.0 : Overture—Basle Symphony Orchestra, "Der Freischutz" (Weber).
- 8.13 : Contralto—Miss Bertha Rawlinson, (a) "The Nightingale" (Kjerulf);
(b) "Over the Sea to Skye" (Trad'l); (c) "The Lady of the Lea."
(Hummel); "Cavatina" (Raff); "Hungarian Dance" (Brahms).
- 8.36 : Tenor—Mr. James Simpson, (a) "Ye Banks and Braes" (McKenzie);
(b) "In Summer Fields" (Brahms); (c) "Mary of Argyle."
- 8.46 : Marimbaphone—Mr. Hugh Dalziel, (a) "The Great Little Army"
(Alford); (b) "The Rag Doll" (Brown); (c) "Lightning Switch."
- 9.0 : Weather report and station notices.
- 9.2 : Novelty—Regal Pantomime Company, "Dick Whittington" (Arthurs).
- 9.14 : Scotch humour—Mr. James Paterson, (a) "Sunshine o' A Bonnie Lassie's Smile" (Lauder); (b) "Soosie Maclean" (Lauder); (c)
"Too-ra-i-oo-ra-i-ay" (Lauder).
- 9.24 : Instrumental—Trio, "Minuet in G" (Beethoven); "Rigoletto" Para-
phrase (Brahms).
- 9.34 : Soprano—Miss D. Youd, (a) "Hurry Up, April" (Trairrs); (b)
"Lilies of Lorraine" (Connor); (c) "The World is Waiting."
- 9.44 : Baritone—Mr. D. Wrathall, (a) "The One Girl" (Youmans); (b)
"Song o' My Heart" (Youmans); (c) "Song of the Volga Boat-
men" (Koeneman).
- 9.51 : Instrumental—Studio Trio, (a) "Air on G String" (Bach); (b) "1st
Movement from Brandenburg Concerto" (Bach).
- 9.58 : Novelty—The Revellers, "Little Cotton Dolly" (Buck); (b) "Ken-
tucky Babe" (Buck).
- 10.2 : Dance programme.
Foxtrots—Jack Denny and His Mount Royal Hotel Orchestra, "Hangin'
on the Garden Gate" (Kahn, Florito).
Ben Bernie and His Orchestra, "Have a Little Faith in Me."
Jack Denny and His Mount Royal Hotel Orchestra, "A Night
of Happiness" (Conrad).
Waltz—Castlewood Marimba Band, "Springtime, Lovetime, You."
Foxtrots—Colonial Club Orchestra, "I Never Dreamt."
Bob Haring and His Orchestra, "I'm in the Market for You."
10.18 : Vocal trio—Earl Burnett's Biltmore Trio, "If I Can't Have You."
Foxtrots—Tom Clines and His Music, "So Sympathetic."
Ben Bernie and His Orchestra, "Let Me Sing and I'm
Happy" (Berlin).
Tom Clines and His Music, "Alone with My Dreams."
Waltz—Castlewood Marimba Band, "Melancholy Moon."
10.23 : Foxtrots—Lloyd Huntley and His Isle o' Blues Orchestra, "Just An-
other Night with You" (Newman).
Tom Clines and His Music, "The Free and Easy."
Lloyd Huntley and His Isle o' Blues Orchestra, "Take Me."
Vocal trio—Earl Burnett's Biltmore Trio, "Out of the Past."
10.45 : Foxtrots—Colonial Club Orchestra, "I'm on a Diet of Love" (Gilbert-
Baer); "Like a Dream" (Rose, Russell, Solomon); "We'll
Build a Little World of Our Own" (Brockman).
Bob Haring and His Orchestra, "Just Like in a Story Book."
Waltz—Tom Clines and His Music, "It Must Be You" (Turk-Ahlert).
- 11.0 : God save the King.
- 7.30 : Talk—Mr. G. D. Rutter, "Gladlioll."
- 8.0 : Chimes. Relay of Municipal Band concert from the Auckland Town
Hall, under conductorship of Mr. Hal McLennan, including a special
appearance of Mr. Jock Lockhart, the well-known 3YA Scottish
comedian.
- 10.0 : Programme of dance music from the studio:
Foxtrots—Tom Gerunovitch and His Roof Garden Orchestra, "Am I
Blue?" (Clarke-Akst).
Carl Fenton and His Orchestra, "Laughing Marionette."
Roger Wolfe Kahn and His Orchestra, "'Twas Not So Long
Ago" (Hammerstein 2nd-Kern).
Ray Miller and His Orchestra, "That's Where You Come In."
10.12 : Foxtrots—Roy Ingraham and His Orchestra, "Like a Breath of Spring-
time" (Dubin-Burke).
Carl Fenton and His Orchestra, "Sweetness."
Roger Wolfe Kahn and His Orchestra, "Don't Ever Leave
Me" (Hammerstein-Kern).
Roy Ingraham and His Orchestra, "Deep in the Arms of
Love" (Davis-Ingraham).
Vocal—Charles King, "Happy Days Are Here Again" (Ager-Yellen).
- 10.27 : Foxtrots—Roger Wolfe Kahn and His Orchestra, "Why Was I Born?"
Ray Miller and His Orchestra, "In a Kitchenette."
Roger Wolfe Kahn and His Orchestra, "Here Am I!"
Ray Miller and His Orchestra, "Ain't You Baby?"
Tom Gerunovitch and His Orchestra, "Let Me Have My
Dreams" (Clarke-Akst).
Waltz—Jesse Stafford and His Orchestra, "A Bundle of Old Love-
Letters" (Freed-Brown).
- 10.45 : Vocal—June Pursell, "Never Say Die" (Robin-Chase).
Foxtrot—Jesse Stafford and His Orchestra, "Only Love is Real."
Vocal—June Pursell, "The Album of My Dreams" (Davis-Arlen).
Foxtrots—Jesse Stafford and His Orchestra, "Should I?"
Henry Lange and His Baker Hotel Orchestra, "Somebody
Loves Me" (MacDonald-De Sylva-Gershwin).
- 11.0 : God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SATURDAY, DECEMBER 27.

- 3.0 : Chimes. Selected studio items.
- 3.30 and 4.30 : Sporting results to hand.
- 5.0 : Children's session.
- 6.0 : Dinner music session.
Mark Weber and His 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" (Easthope Martin).
Band of H.M. Coldstream Guards, "Hobomoko Intermezzo" (Reeves).
- 6.44 : Tacet.
- 6.45 : Trio—De Groot (violin), A. Gibilario (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, market reports and sports results.
- 8.0 : Chimes.
Overture—Salon Orchestra (Conductor, Mr. M. T. Dixon), "Life on
the Ocean" (Binding).
- 8.9 : Mezzo-soprano—Miss Leah Johnston, (a) "Over the Wall of My Gar-
den" (Charles); (b) "Daffodil Days" (Phillips).
- 8.14 : Mandolin duo—Arthur and Still, (a) "The Boston Ideal March" (Sie-
gel); (b) "The Repasz Bond" (Sweeley).
- 8.19 : Bass-baritone—Mr. George Neel, "The Lute Player" (Allitsen).
- 8.23 : Suite—Salon Orchestra, "Suite Danses Miniatures de Ballet" (Ansell).
- 8.31 : Humorous duet—Mr. and Mrs. Ramson Myers, "Modern Courtship."
- 8.37 : Tenor—Mr. Noho Toki, (a) "Little Maori Maid Good-bye" (Flynn);
(b) "A Memory" (Parks).
- 8.42 : Saxophone—Rudy Wiedoeft, (a) "Minuet" (Beethoven); (b) "Valse
Manzanetta" (Wiedoeft).
- 8.48 : Popular songs—Mr. W. E. Elliott, (a) "Lazy Louisiana Moon" (Don-
aldson); (b) "Love Me" (Aivaz).
- 8.54 : Selection—Salon Orchestra, "Student Prince" (Romberg).
- 9.2 : Weather report and station notices.
- 9.3 : Mezzo-soprano—Miss Leah Johnston, (a) "This Little Pig Went to
Market" (Holland); (b) "Serenata" (Toselli).
- 9.8 : Mandolin duo—Arthur and Still, "Medley of Popular Songs."
- 9.13 : Bass-baritone—Mr. George Neel, (a) "Brian of Glenaar" (Graham);
(b) "The Admiral's Yarn" (Rubens).
- 9.19 : Xylophone and Orchestra—Mr. L. W. Probert and Salon Orchestra.
"20th Century Galop" (Stobbe).
Selection—Salon Orchestra, "A Perfect Day" (Jacobs-Bond).
- 9.27 : Popular songs—Mr. W. E. Elliott, (a) "Evangeline" (Jolson); (b)
"Latest Popular Hit."
- 9.32 : Piano—William Murdock, "Marche Militaire" (Schubert).
- 9.40 : Humour—Mr. and Mrs. Ransom Myers, "The Optimist and Pessimist."
- 9.46 : Tenor—Mr. Noho Toki, (a) "Marama Maid of the Moonlight" (Don);
(b) "Sympathy" (Marshall).
- 9.52 : Dance numbers—Salon Orchestra, "The Latest Dance Novelties."

Saturday, December 27

1YA, AUCKLAND (900 KILOCYCLES)—SATURDAY, DECEMBER 27.

- 11.30 : Results of Auckland Trotting Club's meeting at Alexandra Park, inter-
persed with gramophone items from the studio.
- 5.0 : Children's session, conducted by "Cinderella."
- 6.0 : Dinner session:
Boston Symphony Orchestra, "Frühlingstimmen" (Johann Strauss).
Organ—Jesse Crawford, "Serenade" (Romberg).
National Military Band, "Ben Hur" (Byng).
- 6.15 : Vienna Philharmonic Orchestra, "Dorfschwalben" (Strauss).
International Novelty Quartet, "Teddy Bears' Picnic" (Bratton).
Jack Hylton and His Orchestra, "Steppin' Out" (Vauchant).
- 6.30 : New Mayfair Orchestra, "Wake Up and Dream" (Porter).
Organ—Jesse Crawford, "Indian Love Call" (Friml).
International Novelty Orchestra, (a) "To Die Dreaming," (b) "Four
Little Farms."
- 6.45 : Jack Hylton and His Orchestra, "Old-Time Songs."
International Novelty Quartet, "The Skaters" (Waldteufel).
Jack Hylton and His Orchestra, "Lonesome Little Doll."
- 7.0 : News and market reports.

10.2 : Dance programme.

- 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?" (Vallee); "You Wait 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 : Sporting summary.
 11.10: God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SATURDAY, DECEMBER 27.

- 3.0 : Afternoon session—Gramophone recital.
 4.25: Sports results.
 5.0 : Children's hour, conducted by "Aunt Pat and Uncle Charlie."
 6.0 : Dinner session.
 Overture—Grand Symphony Orchestra, "Zampa" (Herold).
 Waltz—Dajos Bela Orchestra, "Morgenblatter" (Strauss).
 6.12: Tacet.
 6.15: Instrumental—Orchestra of the Opera Comique, Paris, "Scenes Pittoresques" (Massenet).
 Waltz—Edith Lorand's Orchestra, "Vienna Waltz" (Drdla).
 6.27: Tacet.
 6.30: Waltz—Dajos Bela Orchestra, "Marien Klange" (Strauss).
 Dajos Bela Orchestra, "Ideale" (Tosti).
 Waltz—Edith Lorand's Orchestra, "Merry Vienna" (Zishrer).
 6.42: Tacet.
 6.45: Waltzes—Edith Lorand's Orchestra, "Song of Autumn" (Waldteufel);
 Queenie and David Kaili, "Hawaiian March" (Ellis).
 Valse Intermezzo—Edith Lorand's Orchestra, "The Flowers' Dream."
 Selection—H.M. Irish Guards, "The Desert Song" (Romberg).
 6.57: Tacet.
 7.0 : News session.
 7.30: Sports results.
 8.0 : Chimes.
 Overture—Philharmonic Orchestra, "The Waffenschmied" (Lortzing).
 Medley—Paul Godwin's Orchestra, "Musical Panorama" (Lincke).
 8.15: Tenor—Mr. Roy Hill, (a) "The Joy of Life" (Corbett); (b) "April is a Gown of Blue" (Thompson); (c) "Bells of Little Weston" (Thompson); (d) "Strawberry Fair" (English Folk Song); (e) "The Frog and the Mouse" (English Folk Song).
 8.27: Violin—Miss Thelma Cusack, "Liebeslied" (Kreisler).
 Instrumental trio—Misses Thelma Cusack (violin), Marjorie Chapman (cello), and Mr. Fred. Page (piano), "Hungarian Dance, No. 6" (Brahms).
 8.37: Bass—Mr. Leslie Fleming, (a) "The Farmer's Pride" (Russell); (b) "Stein Song" (Fenstad); (c) "Because I Were Shy" (Trd'l).
 8.49: Hawaiian guitars and ukulele—Elaine Moody's Hawaiian Quartet, (vocal refrains by Miss Moody), (a) quartet, "Spread a Little Happiness" (Ellis Myers); (b) guitar solo by Miss Moody, "Elegy" (Massenet); (c) quartet, "My Blonde" (Kennedy-Morgan).
 8.56: Monologue—Michael Casey, "Casey's Address to His Comrades in Arms" (Casey).
 8.59: Weather forecast and station notices.
 9.2 : Instrumental trios—Misses Thelma Cusack, Marjorie Chapman and Mr. Fred. Page, (a) "Serenata" (Toselli); (b) "Anitra's Dance" (Grieg); (c) "Mazurka" (Malling); (d) "Scherzo" (Gade).
 Violin—Miss Thelma Cusack, "Canzonetta" (D'Ambrosio).
 9.15: Contralto—Miss Belle Renaut, (a) "Since I Have Loved Thee" (Noel Johnson); (b) "Love in the Meadows" (Noel Johnson); (c) "A Song Remembered" (Coates); (d) "Ferry Me Across the Water."
 9.27: Flute—Mr. W. Hay, (a) "Selection from Il Trovatore" (Verdi); (b) "Pastoral Dance" (from "Neil Gwynn") (German).
 9.37: Hawaiian steel guitars and ukulele—Miss Elaine Moody's Hawaiian Quartet (vocal refrains by Elaine Moody), (a) "I Love You, Believe Me I Love You" (Boutelje); (b) "Please Come Back to Me" (Austin); (c) "Harmonica Harry" (Baxter).
 9.46: Instrumental trios—Misses Thelma Cusack and Marjorie Chapman and Mr. Fred Page, (a) "Hungarian Dance No. 2" (Brahms); (b) "Flower Song" (from "Carmen") (Bizet).
 9.57: Dance music until 11 p.m.
 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" (Davis, Coots).
 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.

4YA, DUNEDIN (650 KILOCYCLES)—SATURDAY, DECEMBER 27.

- 12.0 : Results of Dunedin Jockey Club's Summer Meeting, interspersed with musical recordings.
 5.0 : Children's Hour, conducted by Uncle Sambo.
 6.0 : Dinner music.
 March—H.M. Grenadier Guards, "Martial Moments" (arr. Winter).
 Waltz—Eddie Thomas' Collegians, "Missouri Waltz" (Logan).
 6.15: Violin and Wuritzer Organ—Marrnello, "Evening in the Desert."
 Hawaiian—South Sea Islanders, "Dreamy Hilo Bay" (Heagney).
 March—Columbia Symphony Orchestra, "March of the Toys."
 Piano solo—Percy Grainger, "Molly on the Shore" (Grainger).
 6.30: Waltzes—Eddie Thomas' Collegians, "Till We Meet Again" (Whiting).
 "Beautiful Ohio" (Earl).
 Piccolo duet—Jean and Pierre Gennin, "Rippling Streams" (Gennin).
 6.45: Violin and Organ—Marrnello, "Once" (Saunders).
 Xylophone—W. W. Bennett, "Gee Whiz" (Byron).
 Hawaiian—South Sea Islanders, "Lei Lani" (Heagney).
 Denza Dance Band, "In the Shadows" (Finck).
 7.0 : News session.
 8.0 : Chimes.
 Overture—Band of H.M. Grenadier Guards, "New Sullivan Selection."
 8.9 : Baritone—Mr. B. C. Bellhouse, (a) "Lorraine, Lorraine, Loree" (Capel); (b) "Rest Thee, Sad Heart" (Del Riego).
 8.15: Instrumental Trio—Misses Judd, Moffatt and Rita Holmes, "Anitra's Dance" (Grieg); "Bohemian Girl" (Balfé).
 8.25: Recital—Miss Pennie Marshall, "Santa Clause" (Herbert).
 8.29: Soprano—Miss T. C. Blackman, "Somebody Else" (Mayer).
 8.32: Violin—Miss Eva Judd, "Indian Canzonetta" (Dvorak).
 8.37: Sea Chanteys, John Goss and Cathedral Male Voice Quartet, (a) "Fire Down Below"; (b) "Hullabaloo Balay"; (c) "Haul Away Joe"; (d) "What Shall We Do With a Drunken Sailor" (arr. Terry).
 8.43: Instrumental Trio—Misses Judd, Moffatt and Holmes, "Gipsy Dance" (Bohm); "Love in Idleness" (MacBeth); "German Dance."
 8.53: Contralto—Miss Irene Horniblow, L.R.A.M., (a) "Sapphic Ode" (Brahms); (b) "Sweetest Flower" (Hawley).
 9.0 : Weather report and station notices.
 9.2 : Selection—Symphony Orchestra, "Homage March" (Grieg).
 9.10: Baritone—Mr. B. C. Bellhouse, "The Smugglers' Song" (Mullinar).
 9.13: Instrumental Trio—Misses Judd, Moffatt and Holmes, "Mikado" (Sullivan); "Melody in F" (Rubenstein).
 9.23: Recitals—Miss Pennie Marshall, (a) "The Cavaliers' Escape" (Thornbury); (b) "A Little Learning is a Dangerous Thing" (Pope).
 9.29: Soprano—Miss T. C. Blackman, (a) "Nothing Else To Do" (Goodwin); (b) "Songs My Mother Taught Me" (Dvorak).
 9.35: Piano—Mrs. C. Drake, "Intermezzo" (Brahms).
 9.39: Novelty Vocal—Marion Harris, "You Do Something To Me."
 9.42: Instrumental Trio—Misses Judd, Moffatt and Holmes, "Hungarian Dance No. 5" (Brahms); "Simple Aveu" (Thome); "Moment Musical" (Schubert).
 9.52: Contralto—Miss Irene Horniblow, L.R.A.M., "Mifanwy" (Foster).
 9.56: Guitar—Kane's Hawaiians, "Hilo Hawaiian March."
 10.0 : Dance session.
 Foxtrots—Red Nicholls and His Five Pennies, "I May Be Wrong."
 Bob Haring and His Orchestra, "How Am I To Know."
 Irving Mills and His Hotsy Totsy Gang, "Can't We Get Together?"
 Ben Bernie and His Hotel Roosevelt Orchestra, "Bottoms Up."
 10.12: Vocal—Chester Gaylord, "Sing a Little Love Song."
 Foxtrots—Colonial Club Orchestra, "When You're Counting the Stars Alone" (Russell-Rose).
 Ray Miller and His Orchestra, "Moonlight and Roses."
 Irving Mills and His Hotsy Totsy Gang, "Sweet Savannah Sue" (Razaf).
 Waltz—Carter's Orchestra, "On Miami Shore" (Le Baron).
 10.27: Male duet—Billy Murray and Walter Scanlan, "The Whoopie Hat Brigade" (Siegel-Jaffe).
 Foxtrots—Earl Burnett and His Los Angeles Biltmore Hotel Orchestra, "If I Had a Talking Picture of You" (De Sylva); "Down the Boom Boom" (Gottler); "Sunnyside Up."

- Dan Russo and His Oriole Orchestra, "Because You Said I Love You" (Sanders).
 Waltz—Carter's Orchestra, "A Little Love, a Little Kiss" (Ross).
 10.45: Male duet—Billy Murray and Walter Scanlon, "Last Night Honey."
 Foxtrots—Red Nicholls and His Five Pennies, "The New Yorkers."
 Colonial Club Orchestra, "The Boomerang" (Rose).
 Ben Bernie and His Hotel Roosevelt Orchestra, "Bigger and Better Than Ever" (Friend).
 Waltz—Roy Fox and His Montmartre Orchestra, "I've Waited a Lifetime For You" (Goodwin).
 11.0 : God save the King.

Sunday, December 28

1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, DECEMBER 28.

- 3.0 : Afternoon session—Selected studio items, including literary selection by the Announcer.
 6.0 : Children's session, conducted by "Uncle Bert."
 6.55: Relay of Divine Service from Baptist Tabernacle. Preacher, Rev. Joseph Kemp; Organist, Mr. Arthur E. Wilson.
 8.30 (approx.): Selection—Light Symphony Orchestra, "The Merry Wives of Windsor" (Nicolai).
 Tenor—Mr. Ralph N. Eskrigge, (a) "Macushla" (MacMurrrough), (b) "I Heard You Singing" (Coates).
 Piano—Miss Margot St. L. Toner, (a) "Ionate" (Scarlatti), (b) "Finale—Carnival Jest of Venice" (Schumann).
 Soprano—Miss Joan Laird, (a) "At Dawning" (Cadman), (b) "April is a Lady" (Phillips).
 Flute—Mr. David Whisker, (a) "Serenata" (Moszkowski), (b) "Allegretto" (Godard).
 Choral—Choir of H.M. Chapel Royal, (a) "Welcome Yule" (arr. Stainer), (b) "Infant So Gentle" (arr. Stainer), (c) "Across the Desert Sands" (arr. Stainer), (d) "The Holly and the Ivy."
 Tenor—Mr. Ralph N. Eskrigge, (a) "An Eriskay Love Lilt" (Kennedy Fraser), (b) "The Star" (Rogers).
 Piano—Miss Margot St. L. Toner, (a) "Danse d'Olaf" (Pick-Mangraccall), (b) "Shanghai Tragedy" (Chassins).
 Soprano—Miss Joan Laird, (a) "Look Down, Dear Eyes" (Howard Fisher), (b) "When Song is Sweet" (Sans Souci).
 Flute—Mr. David Whisker, "Norwegian Dance" (Grieg).
 Selection—Band of H.M. Royal Air Force, "Gondolier and Nightingale."
 God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, DECEMBER 28.

- 3.0 : Afternoon session of selected gramophone records.
 6.0 : Children's Song Service, conducted by Uncle George, assisted by the children's choir from the Vivian Street Church of Christ.
 7.0 : Relay of Evening Service from St. Thomas' Anglican Church, Wellington South. Preacher: Rev. C. V. Rooke. Organist and Choirmaster: Mr. W. Gatheridge.
 8.15 (approx.): Studio Concert by the Wellington Artillery Band (Conductor Captain T. Herd) and 2YA artists.
 March—Band, "Etheloid" (Plater).
 Descriptive selection—Band, "In the Chapel" (Ellenberg).
 Soprano—Miss Nora Gray, "Ave Maria" (Mascagni).
 Selection—Royal Opera Orchestra, (a) "Anitra's Dance"; (b) "In the Hall of the Mountain King" (Grieg).
 Baritone—Mr. Ray Kemp, "Mother O' Mine" (Tours).
 Gavotte—Band, "Loving Hearts" (Beyer).
 Contralto—Mrs. Ray Kemp, "Harbour Night Song" (Sanderson).
 Selection—Band, "Lilies at Dawn" (Beyer).
 Weather report and station notices.
 Soprano—Miss Nora Gray, (a) "Lullaby" (Scott), (b) "Hidden Treasure" (York-Bowen).
 Organ—Dr. Albert Schweitzer, "Prelude and Fugue in E Minor."
 Duet—Mr. and Mrs. Ray Kemp, "Hold Thou My Hand" (Briggs).
 Selection—Band, "Oberon" (Weber).
 Choral—Don Cossack's Choir, (a) "In the Church" (Tchaikowsky); (b) "Korsaken Wiegellied" (Gretchaninoff).
 Christmas Carol—Band "O Come All Ye Faithful" (arr. Herd).
 Chorus—"Hallelujah Chorus" (from "The Messiah") (Handel).
 Baritone—Mr. Ray Kemp, "Sea Fever" (Ireland).
 Cello—Beatrice Harrison, "Melody" (Dawes).
 Contralto—Mrs. Ray Kemp, "Tired Hands" (Sanderson).
 March—Band, "Defenders" (Moorhouse).
 God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, DECEMBER 28.

- 3.0 : Afternoon session—Gramophone recital.
 4.25: Sports results.
 5.30: Children's Song Service.
 6.15: Chimes from studio.
 6.30: Musical recordings from studio.
 7.0 : Relay of Evening Service from Knox Presbyterian Church, Bealey Avenue. Preacher: Rev. T. W. Armour. Choir conductor: Mr. A. G. Thompson.
 8.0 : (Approx.)—Musical recordings from studio.

- 8.15: Relay of Evening Programme from 4YA, Dunedin.
 9.30: (Approx.)—God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, DECEMBER 28.

- 3.0 : Chimes. Selected gramophone items.
 5.30: Children's Song Service, conducted by Big Brother Bill.
 6.30: Relay of Evening Church Service from St. Andrew Street Church of Christ. Preacher: Pastor W. D. More.
 7.45: Selected recordings from the studio.
 8.15: Studio programme by Salon Orchestra, under direction of Mr. A. H. Pettitt, assisted by 4YA artists.
 Selections—Salon Orchestra, (a) "Japanese Wedding March" (Translatour); (b) "The Evening Hour" (Kussner).
 Soprano—Mrs. D. Carty, (a) "Ave Maria" (Gounod); (b) "Oft in the Stilly Night" (Moore).
 Piano—W. Murdock, (a) "Waltz in A Flat" (Brahms); (b) "Spring Song" (Mendelssohn); (c) "Liebestraume" (Liszt).
 Suite—Orchestra, "Land of Fancy" (Tapp) 1. "A Swing Song at Morn"; 2 "Sprite's Lullaby"; 3 "The Pixie's Parade."
 Bass—Mr. W. B. Lambert, "The Curfew" (Gould).
 Cello—Mr. P. Palmer, "La Danse" (Gloterman).
 Weather report and station notices.
 Choral—Don Cossack's Choir, (a) "Dance Song" (arr. Dobrowen); (b) "Song of the Cossacks" (arr. Dobrowen).
 Suite—The Orchestra, "Jevington Suite" (Loughborough).
 Descriptive Fantasy with vocal accompaniment—Orchestra, "A Dream of Christmas" (Ketelbey).
 Soprano—Mrs. D. Carty, "Solweig's Song" (Grieg).
 Selection—The Orchestra, "Merry Wives of Windsor."
 Bass—Mr. W. B. Lambert, (a) "Merry Monk" (Bevan); (b) "The Last Call" (Sanderson).
 Band—National Military Band, Grand March from "Tannhauser."
 9.30: God save the King.

2YB, NEW PLYMOUTH (1230 KILOCYCLES)—SUNDAY, DECEMBER 28.

- 6.0 : Children's service.
 8.15: Studio concert.

Questions and Answers

"LITTLE WILLIE" (Gore): Would the Loftin Four be superior to the H.R. Four?

A.: There is simply no comparison. The Loftin Four stands supreme. It is the last word in modern sets.

2. Would a five-valve set, e.g. Browning Drake be a better choice than an H.R.4? Yes. Than the Loftin Four?—No.

3. Is a set using accumulator valves and A and B eliminator superior to the same type of set using a.c. valves?

A.: No; the a.c. set has usually a far greater voltage available than has the d.c. set, consequently it gives better results.

4. Can a license be obtained for one month for a portable set?

A.: It will cost you 2/6.

J. S. (Wellington): What is the gauge of the wire I enclose?—24 d.s.c.

2. What alterations are necessary in the coils of the L.W. to accommodate .00035 condensers?—See constructional article this week.

3. Can I use the 24 d.s.c. wire for the primaries?

A.: No; it will take up too much space.

WILLIE (Timaru): Will a counterpoise improve my set?

A.: It will weaken signal strength but should minimise interference.

2. Please explain exactly what a counterpoise is.

A.: It is another aerial slung directly underneath your normal one. It should be insulated just as carefully as the normal aerial and should be high enough to clear the ground. It is taken to the ground aerial of your set.

3. What would be the cost to build the a.c. short-wave adapter described in the 1930 "Guide."

A.: Using good components, about £5.

KOIL (Timaru): Would you criticise the enclosed circuit of a portable.

A.: We think you would be troubled with hand capacity. The moving plates

of any reaction condenser should be connected to earth or to the lowest potential. The fixed plate going to A—should be the moving plate, and the moving plate should be connected with earth.

2. What B battery would be suitable?
A.: Write one of the big city dealers who could not doubt tell you something about it.

3. Is the valve combination correct?—Yes.

AJAX (Dunedin): What are the correct B and C batteries for the following valves: A609 r.f., A615 detector, A609 a.f., and B605 power?

A.: For good results, A609, 60 volts, no bias; A615, 45 volts, with a positive grid return, first audio, 90 volts, 3 volts bias; B605, 135 volts with 12½ grid bias.

2. Where can I get particulars of an efficient wave-trap?
A.: There is a good one in the 1930 "Guide," and another will be shortly appearing in the "Radio Record."

3. What waveband do the American and Japanese stations use, and what is the best time to get them?

A.: We published those facts only a couple of weeks ago. The American stations operating on all broadcast wavebands can be heard in the later afternoon or early evening, and the Japanese stations after 9 or 10 o'clock.

4. What is the cure for slipping vernier dials?

A.: Tighten them. If you cannot do this yourself take them to a dealer.

KNOW the time all over the world with a

DX Clock.

Printed on Heavy White Paper.
 Posted in Cardboard Tube.

Ed. Bach.

IT is at present fashionable to paper one's rooms with a perfectly plain cream or beige paper, so that the artistic homemaker can have full scope with her cushions, curtains, and chair covers, and rely entirely on her fabrics to give her the necessary colour in the room. Nothing is more restful than petunia colouring—plum and blue—these colours can be procured with shot tones, and they form a very clever colour scheme. Some call it a fuchsia colour effect, but to use it you must have a plain background, and the whole is then a symphony of colour.



slaughtered on a wholesale scale to provide lizard leather, and its extermination seems within sight. The Government officials are making inquiries as to what can be done to stop this, as it is a most serious matter for Bengal.

THE following interesting article appeared in an American exchange, and where many stations operate on the same frequency the fact related can quite readily be understood: A young bride asked her husband to copy a radio recipe. He did his best, but picked two stations at once, one of which was broadcasting physical exercises and the other the recipe. This is what he took down—"Hands on hips, place one cup of flour on the shoulders, raise knees and depress toes, and mix thoroughly in half a cup of milk. Repeat six times. Inhale quickly one half teaspoonful of baking powder, lower the legs and mash two hard-boiled eggs in a sieve. Exhale, breathe

Thought for the Week

We ought to be in a state of happy discontent, for we know that there is not a single thing we are doing that cannot be done better.

—Mr. Gordon Selfridge,
in Address at Buxton.

naturally and sift into a bowl. Attention! Lie flat on the floor and roll the white of an egg until it comes to a boil. In ten minutes remove from the fire and rub smartly with a rough towel. Breathe naturally, dress in warm flannels, and serve with fish soup."

THE latest craze for adorning Mayfair drawing-rooms in London are whole zoos of small animals, made of glass and coloured to look like semi-precious stones. Some collectors want to gather together as many different animals as possible, but all in the same colour; while others prefer a collection of the same animal repeated in jade, amethyst, crystal or quartz. These "objets d'art" are not entirely useless, for they act as menu-holders, paper-weights, or book-ends. A most artistic ash-tray was seen recently formed by an oasis under a palm tree with a camel drinking.

NOW that the Christmas holidays are drawing near, so many families are preparing to go camping, which is one of the most delightful of holidays. In these days of efficient Girl Guides and Boy Scouts, camping has not any of the unnecessary discomforts. Little conveniences, such as coat-hangers, shoe racks, towel rails, are made from stout twigs and bits of string. With a ground-sheet and a few poles you can make a fire shelter, so that in bad weather cooking can be done under cover. Good camping depends enormously on the site. It must be well sheltered and wooded, and with a safe water supply and river for bathing in a spot as secluded and uncivilised as possible.

NOT long ago we used to hear of ex-debutantes going in for a mannequin's career—some for fun, others for pocket money, but they have not kept it up. Then it became the fashion to work in a flower shop, one's own if one were lucky. Now the latest vocation is that of receptionist at a hairdressing and beauty saloon, which means in plain terms being a sort of super-office girl. All that the receptionist has to do is to sit at a desk with a telephone, book sittings deal tactfully with "difficult" clients, and be generally charming and agreeable.

IN Denmark a prize was offered for the best model house designed without regard to popular prejudices. The prize was given to a circular house, with rooms placed round a central hall, in which the inhabitants could follow the course of the sun—bedrooms to the north, gymnasium to the east, living rooms to the south. The roof was flat and made of prismatic glass. In the middle was a circular bedroom for the children, and all around it provision was made for games. Above this was a helicopter aeroplane, made so that it could rise straight from the roof without a run, and with suction feet to prevent it from being blown away. Electric power was supplied by wireless from aerials above the roof, and this also did all the work of the house. At the front door was a perforated rubber mat which worked by electricity and sucked the dust from one's boots. The beds had rubber air-mattresses, and the dining table had a revolving glass top, so that one need not go round in order to reach anything. Truly, a house of the future.

THOUGH we are just beginning our alleged summer, it is as well to know what will be in fashion in the clothing line for next winter, so that we may prepare beforehand. To begin with, belted coats are to be in again, or where not belted a coat will have a wide wrap-over reaching beyond the left hip. Fur collars will be smaller, also shoulder-capes, and muffs and mittens (long lace ones) will be worn. With a distinct waist-line and skirts half-way down the calves, not to mention caps and berets pushed back from the forehead to the uttermost limit, the feminine outline of 1931 will be almost the exact antithesis of the last few years. Sensible women will, of course, choose only such items of fashion as suit their particular type. To rush blindly at them all would certainly spell disaster to Venus herself.

A LONDON friend who is coming out to Wellington to be married wrote to me the other day for advice on the most suitable clothes for our climate. You can all guess my reply. "Bring nothing summery, but you cannot possibly go far wrong by bringing three of the prettiest and gayest mackintoshes, a fur coat, a tweed coat, and costumes; not forgetting the cardigan! Your evening clothes must include a silk velvet frock and a bridge slipper (one that a fur-lining might be secretly hidden away in!). You are coming out to cope with blustering, howling, biting southerlies which visit us regardless of seasons! New Zealand has a wonderful climate but unreliable weather."

SIR ARTHUR YAPP, in his "Adventure of Youth" says: "The modern girl has not had an easy time; but she is self-reliant, resourceful, intelligent and charming; and though she may not admit it, she is domesticated at heart. To the modern girl-wife he says: "Don't be jealous. Take an interest in the happenings of your husband's life. Don't worry him when he comes home tired. Don't waste his money." To the young married man he says: "Remember your wife is human. Don't look bored when she tells you that the kitchen stove won't burn."

ONE of our readers asked what food is most easily digested. Rice is the most easily digested of all foods; it takes only one hour to digest after being eaten. Raw eggs take one and a half hours, and boiled eggs twice as long. For anyone who suffers from indigestion boiled meat, other than roast, should be eaten.

IN order to keep fresh the beach-leaves one has pulled for foliage, a good plan is to slit the stem for about an inch, immerse in slightly salted water for a day, then pour into their vase a solution of one part glycerine to four of water.

TO stuff onions, first parboil them, remove the centres, chop and fry these. Mix with a chopped mushroom, breadcrumbs, and seasoning, bind with an egg. Refill onions with this, cover with breadcrumbs, dab with butter, and bake.

THIS year, lilies, tulips and hyacinths have been grown in great abundance on the north-east coast of Sweden, in the middle of winter, by heating the earth with electric radiators. It is now possible to grow in any part of the world plants which before have only grown in certain climates, by warming the earth by electricity.

A FORTUNATE discovery, which may be the means of preventing serious accidents, was made by the United States Bureau of Mines. They discovered that soap dust, when mixed with air in certain proportions, is more explosive than the dust in coal mines. The result of this discovery is that steps will be taken for the proper ventilation of factories where soap powder is made.

ONE of the great attractions of miniature, or Tom Thumb golf, is that it can be played just as well by electric light as during the day. In fact so popular has this new pastime become that in some parts of America it is said to be ousting the cinema, and even the talkies, and it is no uncommon thing to see players in evening dress starting off from the first tee at 10.30 p.m.

NURSE, after an operation, found that two tubes of radium were lost, valued at £135, and much more in human health and happiness. However, with the help of a very delicate instrument called an electroscope, an exciting hunt began in the drains, and at last, after an exhausting search, the tubes were found uninjured. It would be a great blessing if some clever person would invent a nice, cheap electroscope which would locate lost pencils, pens, rubbers, purses and spectacles, and I hear the office boy say collar studs.

WOMEN, in following the fashion, little think of the far-reaching effect a certain fashion may have on the world. Snakes in Bengal are increasing at a great rate, and this is put down to the fact that the lizards which have been killed for their skins for shoes for fashionable women, used to feed on snakes. This creature is being

SANDY PHERSON bought a radio. Two days later he returned to the shop quite a disappointed man. "What's the matter," asked the anxious salesman, "isn't your radio giving satisfaction?" "Aye, in a way, but the damned valves don't give light enough to read by."

A NOVEL industry is now flourishing in Labrador. As there is an enormous supply of sea-shells in the neighbourhood of Hamilton Inlet, and as sea-shells are chiefly composed of lime, this industry is making large quantities of lime suitable for the use of builders.

WE try to take the credit of all the wonderful achievements for world advancement in the twentieth century, yet it was as early as 1783 that the first balloon was made by the brothers Joseph and Stephen Montgolfier, who ascended and descended safely at Annonay in France on June 5 of that year.

HARRIS homespuns, richly coloured woolly scarves, and hand-embroidered Russian blouses are Chelsea's contributions to fashion (says an English writer). They were exhibited on the stalls of the Chelsea Exhibition of Arts and Crafts in London last month. One woman had her own hand-weaving loom and printing-press working. Two others who have just made 600 tiles for the bathroom of a millionaire's yacht showed how pottery tiles could be adapted for gay nursery dadoes and fire places, and used for fireproof trays and teapot stands. These women began by baking tiles in a little oil-fired oven, and can now turn out 400 specimens a week in their electrically fitted studio. Hat ornaments, hand-carved from coloured bone, and wooden cigarette boxes and wall panels decorated with boldly-cut apoliques of ivory composition were features of the show. A wood carver from the New Forest was showing an amazing collection of hat clips made from oak, ivy and holly, carved to various weird animal shapes and coloured with natural wood dyes.

—ALISON.

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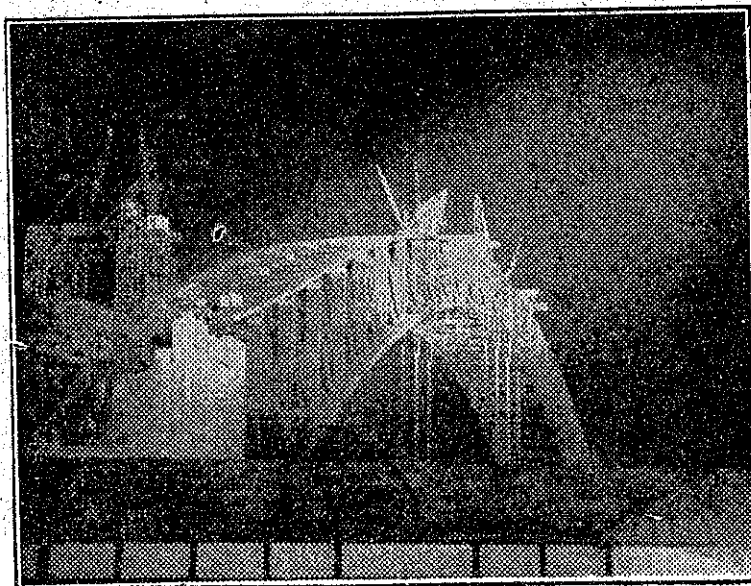
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Bridge of Dreams

Is it arch of fretted marble old
In a fabled land that has long been lost?
Is it span of pearl o'er the Crystal Stream
Where only spirit feet have crossed?
Is it built from the fabric of a dream
Which vanishes at a single breath?
Or is it the way we all must pass . . .
The bridge that crosses the river Death?

—C.S.

(Inspired by photograph of Sydney Harbour Bridge, which appeared in the "Record" of Nov. 14).

The Ideal Hotel

HAVING just returned from a holiday spent in touring the country, the composite picture of an ideal hotel has gradually evolved in my mind. It would have to be built on special lines, but by reducing to a minimum the chief expense of running an hotel—the staff—it should be possible to make it a paying proposition at moderate charges.

The bedrooms, for example, would be labour-saving in the highest degree. Each guest would be expected to keep her own room tidy, and for this purpose there would be in each a cupboard containing a mop, dusters, and clean linen. Running hot and cold water in each room would be an essential, and the taps would be chromium-plated to save cleaning. The rubber flooring would be washable, and all wardrobe accommodation built into the wall. Well-sprung beds, cheerful painted walls, bedspreads, curtains, and rugs would

be necessary items, also a bathroom for every four rooms.

A special playroom for children would be a boon to many mothers, and save unnecessary annoyance to hotel guests on wet days. The lounge and smaller reception rooms would be on the same labour-saving lines as the bedrooms—walls and flooring, wicker furniture, a few good rugs and tables, and good lighting. A small staff could keep this part in order and clean out each bedroom thoroughly after the departure of a guest.

The restaurant would be run on the American cafeteria idea, with the staff reduced to a minimum. The tables would be glass-topped, and wheeled tables would collect used plates and cutlery. The menu, though simple, would be varied and perfectly cooked, and the hot dishes really hot.

Were such an hotel to materialise, suited to the purses of those who at present have to be content with holiday rooms, it would surely have an amazing success.—Janet.

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The Cottage by the Sea

IT was only the other day that we drove for an hour or so from the city, and arrived at a little old-fashioned place near the sea, where the notice "Afternoon tea" attracted our attention. We knocked, and to our surprise an elderly lady in the vicinity of ninety years opened the door. She had grey hair, and it was Elton cropped! Our most polite manner was uppermost in respect for old age, and we inquired if it was possible to have tea. The owner, for so the old lady proved to be, begged us to wait out in the sun and she would soon have it ready. Then we were called, and before us was spread a sumptuous repast. Hot scones, cakes of every variety, and jam; beautiful china and silverware were set out on an old-fashioned walnut table, the possession of which would create happiness in any collector's heart.

While we had our tea the old lady went out in the garden and began working away. We had to call to her when we left, as there seemed no one else to collect the money. She came in with the loveliest bunch of roses for us. After questioning her, we found she ran the whole place herself, cooking and all. Therefore, no matter what age a person is, while there is an interest in life and work, age becomes a negligible quantity.

MR. GILBERT FRANKAU tells us of a conversation he once had with Sir William Hall-Caine on the value of publicity. "I often go to see my publishers quite openly about my Press campaigns," said Mr. Frankau. "I used to do the same," Sir William replied, "but I had to be very discreet about it. How lucky you are, Mr. Frankau, to live in an age when an author does not have to be a gentleman."

WE are indebted to Shreddo, Ltd., manufacturers of "Shreddo," the popular beef suet, for the illustration of Little Jack Horner used in the cooking section of this issue.

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COOKERY NOTES

FRANK KEE

Grape Pie.

Ingredients: Take 1 coffee cup of grapes, 1 teacup sugar, 1 egg, a pinch salt, a deserts spoonful of flour, and a teaspoonful of butter.

Method: Mix butter into sugar, beat in egg, then flour and pinch salt; mix with grapes; bake between two crusts. This makes a delicious pie.

Apple Dandy Jack.

Ingredients: 1 egg, 1 cup buttermilk, 1 teaspoon baking soda, pinch salt, 1 tablespoon lard, flour to thicken, apples.

Method: Cover pudding dish with apples, sprinkle with sugar, then a layer of apples, sugar and butter. Finish with apples, sprinkled with sugar and little dots of butter. Bake in moderate oven half an hour.

Isle of Wight Pudding.

Ingredients: $\frac{1}{2}$ lb. flour, $\frac{1}{2}$ lb. dripping or lard, 1 cup sultanas, $\frac{1}{2}$ cup golden syrup, $\frac{1}{2}$ cup milk, $\frac{1}{2}$ teaspoonful baking powder.

Method: Rub fat into flour, add baking powder, mix into stiff dough with cold water, roll into long strip. Spread syrup over and scatter fruit on this. Roll up as for roly-poly; place in greased pie-dish, pour milk over and bake in moderate oven one hour.

Ginger Pudding.

Ingredients: 2 cups flour, $\frac{1}{2}$ teaspoon cream of tartar, 1 small teaspoon soda, $\frac{1}{2}$ teaspoon salt, 1 teaspoon. ground ginger, 2 tablespoons suet (or dripping), 3 tablespoons treacle, 1 small cup milk.

Method: Sift flour, cream of tartar, soda, salt and ginger together, then add suet and treacle. Mix with milk. Put in greased basin, spreading greased paper over top, and steam for $2\frac{1}{2}$ hours.

well together and bind with no other liquid than the treacle. Put into a dry cloth, unflavoured, and boil five hours. Hang up and boil two hours when required. Economical, but a rich and fine flavoured pudding, and it will keep indefinitely.

Baked Plum Pudding.

Ingredients: $\frac{1}{2}$ lb. suet, 2oz. sugar, $\frac{1}{2}$ lb. flour, 1 egg, 1 teaspoon baking powder, $\frac{1}{2}$ lb. sultanas, 2oz. peel, 1 cup milk.

Method: Sift flour into a basin. Cut suet finely and mix in with sugar, powder, peel and sultanas. Beat up egg, add milk and mix well with other ingredients. Bake in a buttered pudding dish in a moderate oven for three-quarters of an hour.

Syrup Sponge.

Ingredients: One heaped cup flour, $\frac{1}{2}$ cup sugar, 1 egg, pinch salt, 1 heaped tablespoon butter, 1 heaped tablespoon baking powder and milk.

Method: Cream butter and sugar, drop in the egg, and beat well together. Add $\frac{1}{2}$ cup of milk, stir well. Add salt, flour and baking powder at the last. Grease pudding mould, put three-quarter cup of syrup in the mould, pour the sponge in, cover with grease-proof paper and steam for $1\frac{1}{2}$ hours.

Fruit and Custard Pie.

Method: Line a dish with good pastry and bake. Now make a filling. Take a jar of any kind of preserved fruit or a tin of sliced pineapple will do. Strain off the juice, and if less than two cups, make up with water, saving enough juice to make two tablespoons of cornflour into a paste. Put juice on to boil and when boiling stir in the two egg yolks, add one tablespoon of hot water and beat well. Then stir it into the mixture very slowly (not letting it curdle), and cook for a few minutes. Remove from fire, add the flavouring, lemon or vanilla, and pour into the dish of pastry. Now take the halves of preserved fruit and lay them on the custard in the pie. Beat up the egg whites to make a meringue. Drop a spoonful of bright jelly into each half fruit, then a spoonful of meringue on top, or if preferred sprinkle with cocoanut.

Golden Sunshine Pudding.

Method: Line a well-buttered mould with stoned dates, 1 tablespoon brown sugar and 1 tablespoon melted butter. Pour on top the following mixture: 2 eggs, their weight in butter, flour and castor sugar, $\frac{1}{2}$ teaspoon baking powder, and 2 teaspoons marmalade. Beat ingredients thoroughly well together, and steam $1\frac{1}{2}$ hours. Serve with whipped cream or warm golden syrup.

Old English Plum Pudding.

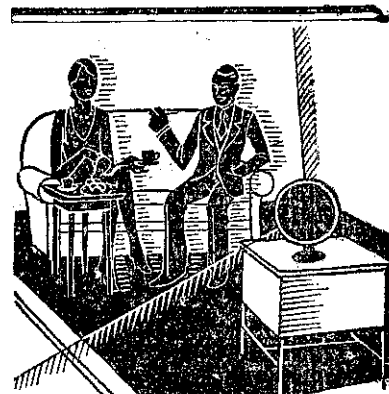
Ingredients: $\frac{1}{2}$ lb. breadcrumbs, $\frac{1}{2}$ lb. currants, $\frac{1}{2}$ lb. flour, half-packet spice, $\frac{1}{2}$ lb. suet, pinch of salt, $\frac{1}{2}$ lb. mashed potatoes, 1oz. each peel and citron, $\frac{1}{2}$ lb. boiled grated carrot, $\frac{1}{2}$ lb. brown sugar, $\frac{1}{2}$ lb. raisins, 2 tablespoons of treacle.

Method: Chop the suet finely, also the peel. Mix all the dry ingredients

Plum Pudding Cold.

Ingredients: 3 dessertspoons gelatine, $\frac{1}{2}$ cup chopped dates, $\frac{1}{2}$ cup chopped almonds, $\frac{1}{2}$ cup sultanas, $\frac{1}{2}$ cup raisins and figs mixed, 1 piece of lemon peel, 3 tablespoons cocoa, $\frac{1}{2}$ cup brown sugar, 3 cups milk, vanilla, salt, spice to taste.

Method: Blend cocoa in a little cold milk, then stir it into the rest of milk, and bring just to boiling point. Have all the other ingredients ready, stir into the milk, and boil for five minutes. While it cools dissolve the gelatine in a little hot water. Stir into the cooled pudding, mix well, then pour into a wetted mould and allow to set. Serve with whipped cream or custard.



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A LONDON amateur recently made radio history by picking up a television transmission from America. He was using a six-valve shortwave set of his own design, and was not searching for television transmissions at the time. However, on hearing the characteristic television note, he decided to investigate it, and finally could distinguish the head and shoulders of a man. The picture was distorted, but movements could be plainly seen.

FOURTEEN American broadcasting stations now use or have been authorised to use the maximum power of

50 kilowatts, and twenty-seven others are applying for the privilege. During the coming three months the Federal Radio Commission will have to consider more than 300 applications for changes of station ownership, wavelength and power. It is predicted that most of the applications will be summarily refused, owing to the tremendous amount of congestion already prevailing. The present basis of private ownership in America, remarks a contemporary, is probably responsible for the fact that the Federal Radio Commission is a much more harassed body than the Union Internationale de



Radiofusion, although the later controls all the broadcasting stations of Europe!

IT has been estimated that before next March there will be over 600,000 receiving sets in use in Canada. The licensed receivers, which experience reveals to be only about 80 per cent. of the sets actually in use, are placed at 500,000. Gradually, however, the delinquents are paying.

IT was reported in the English Press recently that a scientist had declared that in about a hundred years' time it should be possible to pick up wireless programmes now being broadcast. We wonder what will become of the "dissatisfieds" of Mailbag fame.

SENATOR MARCONI, in an interview published by an English newspaper, made the following interesting prophecies concerning television.—"Television is still in the experimental stage, but in the next decade I think you will find that it will be installed in as many homes as now have wireless sets. Television and wireless will bring the world to the cottage parlour. Wireless has speeded up life; it will speed it up still more when we are complete masters of the ether. This is not yet the case, but in ten years we shall be approaching complete control."

TALKIE projectors incorporated in radio-gramophone sets are scheduled for appearance on the American market this winter. Prices, it is stated, will be less than £40 for the complete instruments. The gramophone section will be provided with a switch connecting the amplifying system to the film projector. Under a rental system, records will be available to purchasers, together with synchronised films, which will be similar to the silent variety, being 16 mm. in width and 400ft. in length per reel. Home talkie records will also be produced.

THE Sultan of Morocco is keenly interested in radio and spends many hours in his palace at Rabat listening-in. During a recent visit to France he bought a very fine wireless set, but he was unable to take this back with him as the constructor wanted to make some final adjustments to ensure that for such an important client the set was in perfect order. At the conclusion of the tests the set was dispatched to the Sultan by special aeroplane.

THE difficulties which beset a broadcasting station operating in the tropics are legion. High tension dry batteries are useless in the humid conditions after a few weeks of life, while transformer coils, chokes and loud-speakers develop faults with annoying frequency. Often the water supply for cooling the transmitting valves becomes perilously low, while in extreme cases it is found necessary to discontinue transmission. In some countries, for example, Ceylon, the prolific insect life sometimes causes trouble. Flying ants at certain periods of the year invade the station in myriads, forming a dense cloud around the glowing valves and occasionally causing damage by short-circuiting the 6000 volt high-tension supply.

A NEW weather information service in the form of charts which will be sent by radio is shortly to be introduced on trans-Atlantic liners. Such charts will reveal high and low pressure, barometer and readings, direction of winds, fog banks, and other information valuable in navigation. Arrangements have already been made for two charts to be issued daily from London and New York. The London charts will be the guidance of vessels from the United States to Europe, and the New York charts will be transmitted to ships sailing from Hamburg, Southampton, and Cherbourg. An endeavour is also being made to develop the service so as to permit of the reception in mid-ocean of replicas of newspaper pages published in London and New York during the voyage.

THE official in charge of the short-wave commercial services at Rugby, in England, are contemplating a supplementary transmitter for communicating with Japan. These experiments are being made with a view to establishing a public service between the two countries. Arrangements have already been entered into between the Japanese Minister and the P. and T. Department.

Wavelets

A PRIZE of 1000 dollars is to be paid each year by the Academy of Arts and Literature in New York to the best American announcer.

A new telephone line has been installed in Canada which permits eight persons to speak simultaneously.

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