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AND
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WELLINGTON, FRIDAY, MARCH 14, 1930.

Price, 3d.

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to a brass band



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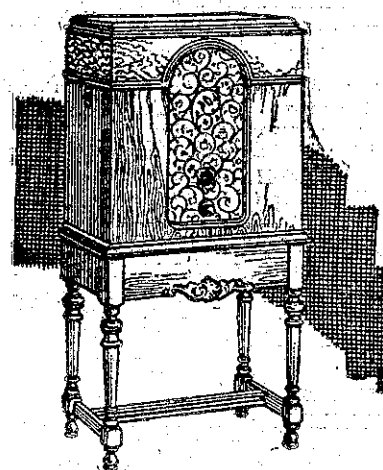
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WELLINGTON

Notes of the Week

(By "Switch.")

A CITY listener recently asked "Switch" whether it were possible to use an outdoor aerial without boring a hole in his office window, and without having the window open. The system advised by "Switch" was to glue a sheet of tinfoil about 18 inches square on the top outside corner of his window, and to glue a similar sheet of tinfoil on the inside of the window exactly facing the other sheet of tinfoil. The lead-in should first be fastened to the outside sheet of tinfoil with resin-cored solder. To take the wind strain on the lead-in it should be secured to an insulated fixing outside the window. A piece of flex wire should be fastened to the inside sheet of tinfoil with a terminal, and then connected to the aerial post of the set. There should be a margin of about an inch between the edges of both sheets of tinfoil and the window frame.

"SWITCH" has been asked the following question by "Quantum" (Kilbirnie): "What is the actual electrical supply cost of running an eight-valve A.C. set per month? This is to include the rectifying valve in the set." Judging from the writer's own rough tally it costs him about 2/6 per month for electricity to operate his own eight-valve A.C. set, working about six hours daily as an average. When the A.C. sets first came out the bogey of cost for electricity was raised, but the users of these sets were soon convinced from actual experience that they are cheaper to run than battery type sets, taking into account the cost of battery charging alone and not the cost of battery replacements.

NOW that the season of strong winds is upon us, listeners should take care to tighten their lead-in wires. The writer has lately heard of three cases in which the lead-in has snapped where it leaves the aerial. This type of trouble is due to the lead-in being too slack, thus enabling it to swing about in the wind too freely, eventually causing the wire to weaken and snap close up to the aerial.

RADIO listeners who operate electric sets, whether A.C. or of the battery type, are good customers of the various city corporations and power boards. The Wellington City Corporation's electricity department appreciates this fact and is not behind in assisting listeners when possible. Lately a street light in Wellington, through its habit of flickering, caused interference with broadcast listening over a wide area. Time and again the lamp socket was renewed, and still the light flickered whenever the wind sprang up. Eventually an electrician was sent to examine the light at night-time. The trouble was then located in the wires leading to it from the mains and was promptly rectified. The surrounding listeners much appreciated the City Council official's action.

ON Wednesday night, March 5, while "Switch" was listening to 2FC, Sydney, he heard the shrieking of a siren. There was no mistaking the sound, as it was quite different to a howling valve, and the writer remarked that it sounded like the passing of a fire engine. Presently the announcer stated that it would be of interest to country listeners to know that the noise they had just heard was the siren of a fire engine dashing along Castlereagh Street past the studio.

A BEGINNER who has just purchased an up-to-date A.C. set has informed "Switch" that he gets morse, though not obtrusively loud, on somewhere about 1000 kilocycles (300 metres), and he asks whence it originates. The station heard is the Government morse station-VLW on Tinakori Hill, overlooking Wellington. The morse heard is from the second harmonic of that station.

"HEADPHONE" (Karori) asks whether the writer has heard two stations clashing on a wave-length about 235 metres (1275 k.c.), and asks which stations they are. "Switch" hears the stations referred to frequently, but is not able to identify them. It would appear that one is in New Zealand, but the heterodyne whistle created by the proximity of the wave-lengths of the two stations prevents the call sign being distinguishable. One station closes down at about the average time observed for signing off in New Zealand. A small Australian station operating on about 210 metres (1430 k.c.); can be heard clearly from the loudspeaker after 11 o'clock every night, but "Switch" has not been able to distinguish the call sign.

A LADY vocalist with an uncommon voice was heard from 2FC, Sydney, the other night. She was announced as a "lady baritone," and it was almost impossible to believe that one was listened to other than a male singer. The voice was rich in quality, and with a full baritone range. The lady, whose name was duly announced, sang a number of items.

"SWITCH" congratulates the Broadcasting Company on the success of the broadcast of speeches in connection with the visit to New Zealand of the Australian dairy farmers. Reception from 2YA, Wellington, is reported from near and far as being perfect. The speakers, without exception, enunciated clearly, and their voices were so well modulated that one could almost believe they were practised broadcasters. All New Zealand listeners, whether farmers or not, could not help being interested in the wonderful praise bestowed the dairying industry in New Zealand by the Australian visitors. They left one with a sense of satisfaction in the knowledge that one of our main primary industries is conducted on amazingly efficient lines, and is on the whole well in advance of that in Australia.

IN a few months Australia is to have five powerful broadcasting relay stations, three of which are to be replicas of 2YA. All the new transmitters have been ordered from Standard Telephones and Cables (Australasia) Ltd. Three of the new stations will have a power of 5000 watts in the aerial—the same as 2YA, and the other two are to have 2000 watts in the aerial. Even the latter two will be more powerful than any of the existing "A" class stations in Australia.



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The Lissen Screen-Grid-Three stands out for range, volume, completeness, and compactness among all kit-sets. With short wave coils it spans the world, on the broadcast band it gives a volume and clarity equal to the most expensive assembled set.

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Short-Wave Coils and Accessories extra.

The Lissen-Screen-Grid-Three stands out as a classic among home-constructed sets. It is easy to build and its cost is low. Build this receiver with your own hands. Send for free literature to-day!

Your local Radio Dealer can supply you with a Step-by-Step Chart and will help you with all details, although a person with no technical knowledge could build the set without any help whatever.

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The Radio Sets of To-day

An Answer to the Questions raised by the non-technical Listener



DECIDING what radio receiver to buy is harder this year than it ever was before. And, curiously enough, the difficulty now is due to the fact that there are so many really fine sets on the market.

Cabinet designs have become so standardised that dozens of different radio sets varying widely in power, price, and so on look practically alike except for minor details in the finish of the cabinet. Of course the more expensive sets have finer cabinets, but the less expensive outfits are housed in cabinets so carefully built that they give the impression of high quality. In many cases only an expert cabinet-maker can distinguish between them.

Some of the important questions our readers are asking about this year's radio receivers are answered below. The answers should prove helpful to prospective set buyers.

"WHAT are the meanings of all the new terms used to describe tone quality?" Good tone quality means just one thing—the ability of the radio receiver to reproduce, as perfectly as is scientifically possible, the tone produced in the broadcast studio. And that in turn means that the electrical and acoustical characteristics of the receiver are such that every tone frequency is treated in a uniform manner. None should be over-emphasised, none suppressed, and none distorted. Many high-sounding but utterly meaningless phrases and words have been coined and applied to radio receivers to indicate that in one way or another they are better than other makes as far as tone quality is concerned. The basic fact remains, however, that a receiver is a piece of mechanical and electrical apparatus designed to do just one thing. That is to reproduce as faithfully as possible the air vibrations produced by the artists broadcasting. That function may be called by any name imaginable without improving the results.

"WHY are screen grid valves better?"

The screen grid valve, from a theoretical standpoint, is a remarkably efficient radio-frequency amplifier. If used in a well-designed circuit it produces, in a practical fashion, more radio-frequency amplification than can be obtained by the older type valve. It must be remembered, however, that the presence or absence of the screen grid valve in the circuit has nothing whatever to do with the tone quality that a radio receiver will produce.

Just because a receiver has screen grid valves does not guarantee improved tone quality. Thousands of radio receivers that have no screen grid valves, are being manufactured, and will be sold this year, and they will give excellent satisfaction to their owners. If the prospective purchaser is interested only in local reception or he is located where a good antenna can be erected, screen grid valves will be of no particular benefit. On the other

hand, if he is located where it is impossible to put up a good antenna, and local reception conditions are very unfavourable, then a set using screen grid valves will help him to bring in stations that he otherwise might not receive.

"DOES power detection give greater distance and more volume?" Theoretically, power detection gives

not power detection should not be considered for or against it, provided the tone quality is satisfactory.

A power detector is not as sensitive to weak signals as is the conventional grid condenser and grid leak method of detection. This, too, is relatively unimportant. In circuits designed to use power detection the radio-frequency amplification is greater than in circuits

that the net result is little better than it has been in past years. In any case, modern radio sets are practically hum free in operation.

"IN what way are this season's sets better than last year?" Judging from tests of a number of different receivers, the radio sets produced this season are more sensitive, more selective, and give better tone quality than last season's sets. The improvement is perhaps more noticeable in the low-priced sets than in the high-priced ones, simply because there was more room for improvement.

The increased sensitiveness and selectivity of this season's products is due in some cases to the use of the screen grid valve and in other cases to a better design of the radio-frequency circuits used with the type 227 valve. In addition, there has been a noticeable improvement in factory production methods, so that the individual tuned stages are more accurately synchronised with each other.

DO the new sets cost more to operate? The cost of operation of any radio receiver can be divided into depreciation, cost of current per hour, cost for tube replacements, and repairs.

Depreciation cannot be figured by any ordinary method because a modern radio receiver will last for years. The cost of electric current depends on the number and size of valves used in the set. If, for instance, a set uses three screen grid valves, type 224; two heater valves, type 227; and two power valves, type 171A, it will use just as much current whether the set costs 100 dollars or 300 dollars. In any case the amount of current consumed, as compared with sets of last year of approximately equivalent price, will be only a small fraction greater. If the set uses 245 power valves the current drain will be somewhat heavier.

WHAT is the advantage of automatic volume control? Automatic volume control is another improvement for convenience rather than operation. In one form, automatic control is obtained by the use of a special valve in the circuit, so connected that the strength of the received signal changes the plate current flow, and the change in plate current flow, in turn, changes the grid bias on the radio-frequency stages. The result is that all local stations sound alike in volume. In addition a hand control is provided to cut the volume below the level to which it is controlled by the automatic arrangement.

WHAT is meant by uniform sensitivity? A theoretically perfect radio receiver should be equally sensitive on all wavelengths or frequencies. Most radio receivers in the past have shown greater sensitiveness to signals on the lower end of the wavelength band; in other words, on the higher frequencies. A station received on 545 metres or 550 kilocycles, for example, usually gave considerably less volume from the loudspeaker than a

The Microphone

*Some creep up to a microphone
As though to bow before a throne;
Others approach with ready ease
And cry, "How do I use it, please?"
Some stand in solemn thought profound
Thinking their message will fly around.
Some in stentorian voices shout—
Thinking all Mikes are deaf, no doubt.
Some speakers great precautions take
That they a good result may make,
So first they shout; then whisper low;
Speak fast and faster, then go slow.
All this repeated, grave or light,
Ensures that "some of it is right."
Some speakers like to stand quite near
The Mike, because "he's such a dear."
While others, too, far back will go—
"I don't quite like the thing, you know."
A timid speaker will begin,
"Oh, can you hear me, listeners-in?
I fear my voice is hardly loud
Enough to talk to such a crowd.
So if you back rows do not hear
See if you cannot come more near."
Many there are who think "I'd like
To talk through this mysterious Mike!"
While others say, "Oh, I'd not dare
To throw myself out on the air!"
Oh, microphone, so weird and wise!
Do you us human folk despise?
Oh, no! You do your best to spread
Abroad each wise word that is said,
And many a person, kept at home,
Loves you e'en more than those who roam,
So take our thanks from one and all
In voices loud, soft, quick or drawl.
As to these lines, apologies we own
Are due. The writer never saw a 'phone!*

—G. Colborne-Veel.

better tone quality simply because it eliminates a certain amount of distortion which takes place with the older type of grid condenser and grid leak method of detection. The difference, however, is hardly noticeable, except to the trained ear, and then only when the audio amplifier of the set and the loudspeaker are both of excellent quality. The fact that a set has or has

not been designed to use the new system of detection. In some sets the power detector is coupled directly to a single audio amplifier stage using power valves. This arrangement inherently produces less hum than does the circuit using two audio amplifier stages. In some cases, however, the manufacturer has taken advantage of the reduced hum to cut down the filter circuits so

station received on 236 metres or 1170 kilocycles.

There are two reasons why this situation existed. First, the radio-frequency transformers then used were more efficient on the higher frequencies; and second, the natural tendency of the tubes to regenerate was greater on the higher frequencies.

These conditions still obtain to some extent, but other factors working in the opposite direction have been introduced into the circuit in some cases. The net result is a reasonably uniform degree of sensitivity on all wavelengths within the band used for broadcasting.

WHAT is the advantage of push-pull amplification? Push-pull amplification is featured in a large number of the latest sets. The push-pull circuit definitely reduces distortion and therefore improves tone quality. Briefly, the characteristics of a power valve are such that a small amount of distortion is produced in its operation. In the push-pull circuit the distortion produced in one valve is balanced out by the distortion produced in the other valve.

ARE the new speakers any better than those of last year? The high-grade loudspeakers this year produce no better tone quality than the high-grade speakers of last year, but in the less expensive models there has been a vast improvement. There is less difference in tone quality between a low-priced speaker and a high-priced speaker now than there ever has been in the past.

DO the new sets need antennas? Since the latest sets are, on the

average, more sensitive than their predecessors, in any given installation a shorter antenna will produce the same results as the longer antenna of previous years. In an unfavourable location where reception is poor at best and the building is of steel with wire lath construction, an antenna still is necessary for really satisfactory results. Or course, conditions vary so that it is impossible to give definite rules.

WHAT new improvements may be expected next season? It is difficult to see how any radical improvements can be made in the latest radio receivers. From the standpoint of tone quality, for example, it is extremely doubtful whether anyone except a trained musician could detect the difference between the type of reproduction obtainable from the best of modern sets and an outfit that was theoretically perfect. In other words, with the best sets of this year it is practically impossible to determine, when listening from another room, whether the music is from a radio set or from actual musical instruments.

Future radio receivers may be made even more sensitive and selective than they are at present, but any great improvement in sensitiveness would be of no use because the static level is, in any case, the limiting factor. Any great increase in selectivity can be accomplished only by sacrificing tone quality. Improvements from now on are likely to be in the nature of mechanical refinements in construction and operation, and of changes in cabinet design.

Byrd Transmissions

Brilliantly Successful

THE tests between 4YA, 2YA, 2ME and 2XAF were successful late Sunday night. Sydney included some local static in their rebroadcast of New Zealand stations, but speech was quite clearly understood from every angle. 2XAF had a long chat with both 2YA and 4YA.

A triangular talk was clearly heard in Wellington between 2YA, 2ME and 2XAF (Wellington, Sydney and New York).

On short-wave reception everything was O.K. from both Australia and New York.

4YA passed on by 2YA to 2ME, and back from 2ME on short-wave as received in Wellington by Mr. R. Leslie Jones was beautifully clear with plenty of volume.

The Dunedin broadcast was passed through the land-line and cable to Wellington, and thence rebroadcast by 2YA on to Sydney.

Further tests were to be carried out by the quartet Tuesday this week from about midnight (N.Z. time).

Commander (Admiral) Byrd was to speak from Dunedin Wednesday last, and at time of writing the indications appeared favourable for clear reception in America.

The Sunday night tests ended at approximately 1.30 a.m. (Monday). Mr. A. Ochs, owner and publisher of the "New York Times," was to be the principal speaker from New York to

Commander Byrd, and Mr. Emanuel Cohen, head of the Paramount News Reel, also Captain Raleigh, Commander Byrd's manager in U.S.A., and Governor Byrd, of Virginia, brother of Commander Byrd, were invited to speak to Admiral Byrd.

A huge reception is being arranged at Chicago by the "Press Club of Chicago," of which Commander Byrd is a member; accommodation being provided for 115,000 people.

Saturday last was the anniversary of the special transmissions to Commander Byrd at "Little America" from WGY through the short-wave stations 2XAF and 2XAD. It was the final of the special week-end transmissions from WGY, Schenectady, New York.

Trade Personals

Mr. Scott Ramsay, manager of the "Hoover" organisation, has completely recovered from his temporary indisposition, and has taken up his duties again.

Mr. N. R. Cunningham left Masterton on March 11 on a tour of the North Island, appointing distributors for the new Miraco tenth anniversary radio.

Mr. W. J. Smeeton, Director of Abel, Smeeton, Ltd., Auckland, left on his annual holidays last Friday. We understand he is making an extensive motor tour.

Mr. C. A. Black, who was appointed managing-director for New Zealand of Electrolux, Ltd., last December, has just completed an inspection of the Electrolux depots throughout the Dominion.

MIRACO

TRADE MARK REGISTERED

"BETTER IN EVERY WAY"

Screen - Grid, Electro - Dynamic, Power Detection, Push-Pull Audio, 245 Power Valves.

Phonograph Terminals, New Condenser Balance, Absolute Single Control, and Solid Walnut Consoles.

MIRACO RADIO IS QUALITY THROUGHOUT

THE MIRACO A.C. 9. Nine Valves (including rectifier), Screen Grid in its proper place, absolute single control, new Rola Electro-Dynamic Speaker, high voltage power detection, 245 Valves working at full voltage, Push-pull Audio, Phonograph Pick-up Terminals, Cabinet of specially selected solid walnut throughout, beautifully hand polished and built to New Zealand styles.

PRICE COMPLETE £57

For those who desire a cheaper quality radio, Miraco has built the A.C. 7. Seven valves, including rectifier, a worthy companion to the A.C. 9. Mounted on a heavy steel chassis, polished aluminium shields, absolute single control phonograph pick-up terminals, built-in Rola power speaker. Cabinet beautifully finished in walnut, hand polished and exactly similar in design to that of the A.C. 9. A gem of beauty and performance at an amazingly low price.

PRICE COMPLETE £43/10/-

TENTH ANNIVERSARY RADIO

The country was combed for this crowning achievement of ten years of radio pioneering. Every minutest part is precision-tested before assembly—experts carefully watch the construction lines—and each set is individually tested on actual broadcasting before being shifted from the factory.

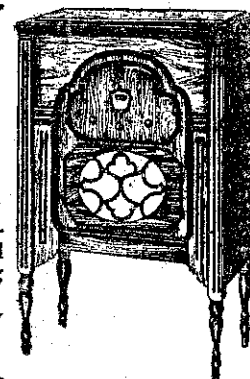
For example, take the new Super Heavy Duty Power Pack.

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Detecting Icebergs by Radio

PROFESSOR BARNES, an American scientist, has recently invented an apparatus which should effectively remove one of the greatest dangers associated with ocean travel, namely, the possibility of collision with icebergs. It has been discovered that an iceberg is ten per cent. air—air that is thousands of years old, and which was trapped with the snow that fell on the high ice-caps at the North and South Poles. When the iceberg begins to melt in warmer currents, the air comes to the surface with a hissing sound plainly audible at a considerable distance. When there are no ship noises to drown it out.

Professor Barnes hoped that a high-frequency microphone, connected to a sensitive radio-amplifier, would be able to pick up the hiss from under the sea. The initial tests were disappointing, however, for no sound could be heard. A low-pitched microphone, which had been taken with the expedition accidentally, when pressed into commission, developed a loud noise, and it was discovered the source was the constant melting and cracking of the berg below the waterline. At a six-mile range it was found the noise of the melting berg could be clearly separated from all sounds on the ship.

Can you solve a difficult problem?

See

"TRIALS IN TACT"

(On page 27 of this issue.)

News from Across the Tasman

Impending Australian Broadcasts

A REPRESENTATIVE programme of Russian art will be presented from 2FC by Ewart Chapple, on March 13. As an example of Russian literature, Mr. Ireland will present a dramatisation of the climax of Tolstoy's powerful novel "Resurrection." The first musical number will be one by Tchaikowski, perhaps the most famous of all Russian composers. Following an orchestral rendering of his "Marche Slav," the A.B.C. Male Quartet will sing the well-known "Song of the Volga Boatmen." This will be followed by further Russian music, and a talk by Mr. Ewart Chapple on "The Evolution of the Russian Ballet." The entertainment will conclude with an orchestral rendition of a portion of "Scheherazade," by Rimski-Korsakoff.

COMMENCING on March 13, Dr. Harold Norrie will begin a series of interesting talks from 2FC, under the title of "Tales Re-told." On the above date he will retell the story of "Jack and the Beanstalk." Fairy tales, like most legends, are usually based on facts, which, however, have become so distorted in the process of being re-told through the ages that they appear to us fantastic and impossible. Thus, in "Jack and the Beanstalk" we have an instance of considerable mutilation of a story concerning a fortunate accident, and the history of this "fairy tale" will be traced by Dr. Norrie.

THE second of the "League of Nations" series of broadcasts will be given from 2BL on March 13, when Germany will speak through the medium of her

consul in Sydney. Dr. Busing has had wide experience of consular work in all parts of the globe, and his talk will be the official statement concerning Germany's attitude towards those peace problems which vex Europe to-day. The address will be followed by a German musical programme arranged by Madame Emily Marks and Madame Evelyn Greig, and include beside traditional folk songs, the "Verdorgenheit" (Wolf) and "Ich hab ein Kleinerleid erdacht" (Bun-ger). The programme will conclude with a rendering of the first movement of the "Kreisler Reine" (Schumann), and the overture from "Der Rosenkavalier" (Strauss).

A WELCOME addition to 2FC's programme on March 14 will be "The Mascots," a talented little band of performers who never fail in supplying first-class entertainment. May Fouldes, soprano, will present a selection of popular songs, while Mattie Ive, a London comedienne, will appear in character sketches.

A PROGRAMME of organ music from the Pitt Street Congregational Church, arranged by Miss Lilian Frost, will provide a pleasant evening for the music lovers who tune in to station 2FC on March 14. Miss Frost is well-known to the listening public, as she has been associated with 2FC since its inception.

A PROGRAMME of light classical songs, including two by Schuman ("The Two Grenadiers" and "Intermezzo") will be featured by Allan White-

head from 2BL on March 14. Mr. Whitehead, who is one of Dame Nellie Melba's proteges, has been continuing his musical studies abroad, and is in Australia for a few weeks' holiday.

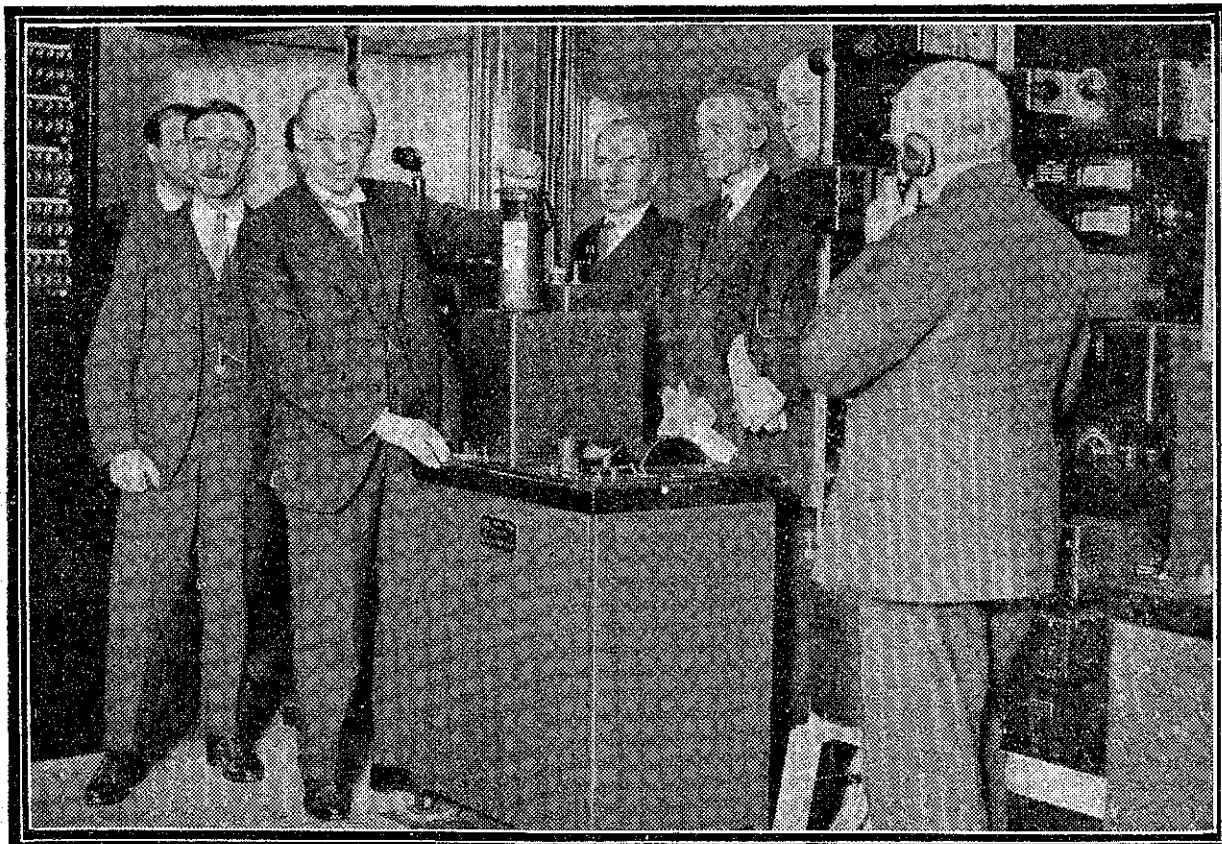
ON March 14, from station 2BL, Captain F. Aarons will narrate the history of the "Great Ice Age" in the light of investigations by Lyell, Lubbock, and other accredited authorities. He will discuss its causes, effects on life and topography, its relationship to prehistoric man, and its final recession.

MR. H. Fleming, who has commenced a series of talks on that famous American humorist, Mark Twain, will deliver his second talk from 2BL on March 14. Mark Twain, who was Samuel Clemens in private life, drifted into journalism after the American Civil War, making himself famous as a humorist in 1869 by his "Innocents Abroad," the result of a trip to Europe. From that time he was actively employed in editing and in producing more works of humour. Among his more popular books may be mentioned "A Tramp Abroad," "Tom Sawyer," "Huckleberry Finn," and "Puddenhew Wilson."

A MOST interesting talk will be given from 3AR, on March 15, by Mr. A. A. Downs, who will speak on "Elephant Catching and Taming." Mr. Downs has had many years' experience as a big game hunter, and will relate many exciting personal experiences.

ON March 15 Cyril Sainte will broadcast banjo novelties from 2BL. He is a clever exponent of this instrument, and his recently formed string quartet is already very popular.

HAVE you obtained your "Listener's Guide"? 2/6 from booksellers and radio dealers, or 2/9 posted from the publishers, Box 1032, Wellington.



Inauguration of British-German Picture Wire Service.—The British Postmaster-General (Mr. Lees Smith) and the German Minister of Posts last month inaugurated the new telegraph service for pictures or any kind of document between London and Berlin. The picture shows Mr. Lees-Smith (second from left) at the transmitting apparatus at London.

—Central Press photo.

The New Zealand Radio Record

—AND—

Electric Home Journal

(Incorporating the "Canterbury Radio Journal.")

P.O. BOX, 1082, 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.

N.Z. RADIO PUBLISHING CO., LTD.,
P.O. Box 1082, WELLINGTON.

WELLINGTON, FRIDAY, MARCH 14, 1930.

COUNTRY INTERESTS.

THE experiment of giving city listeners some glimpse of country interests was made from 2YA on the evening of Thursday, March 6, by staging a special evening for the delegation of Australian dairymen which has been touring the North Island of the Dominion. That delegation was primarily concerned to investigate the conditions obtaining in the dairy industry of the Dominion, with a view to sizing-up the position regarding future production and the possibility of combined effort being entered into between the producers of the Commonwealth and the Dominion in regard to the marketing of their export produce overseas. This effort is in line with the business tendency of the age, under which cut-throat competition is giving way in popularity to co-operation, where mutual interests are involved. As considerable interest has been taken by New Zealand dairymen in the visit of this delegation, the idea was conceived of affording a special opportunity, through 2YA, of conveying to them the major impressions gathered by the Australians. Accordingly the leader of the visitors, Mr. G. S. Stening, and Mr. J. Rankine, chairman of the Australian Dairy Council, were grouped round the microphone with Mr. W. Goodfellow, chairman of Amalgamated Dairies, Limited, and various questions submitted to them by the editor of the "New Zealand Dairy Produce Exporter." These questions were designed to draw out views upon the industry—its present attainments and the possibility of betterment in regard to marketing.

FROM reports that have been received it would seem that the experiment of a definite conversational interview of this nature was quite successful. Naturally much depended upon the spontaneity of the questions and the responses made, but the personnel of the party proved quite equal to that demand, and an interesting half-hour was the result. Even city listeners, unaccustomed to the intricacies of the dairying world, report that the conversation was very effective in conveying information upon dairying with which they were quite

unfamiliar. It was pointed out that dairying now constituted the major source of our national income; that 60,000 farm homes were directly dependent upon her majesty the cow, and in turn city and town interests depended for their prosperity upon the flow of gold from farm fields. That thought was fittingly finalised by Mr. Goodfellow in urging that the time was ripe for city interests, particularly business men, to give definite thought to the problems of the rural dwellers, particularly their marketing problems, with a view to extending co-operation and sympathy as far as possible. Radio, in its obligation to render common service to city and country, can well serve as a medium for extending the bounds of knowledge of both interests. All listeners are equal before the microphone, and in meeting the general demand for diversity of interest the radio service is steadily expanding and broadening the fund of common knowledge.

LATER in the evening, for the benefit mainly of Australian listeners, set speeches were given by various experts associated with the party, conveying the impressions gleaned by their visit upon the subjects in which they were specially interested. Advice from Australia indicates that this transmission was well received, so that the unique experience was given Australian dairymen of learning at first hand the immediate impressions of visitors to our shores.

Taranaki Band Concert

2YA to Relay from Eltham

THE Band Contest conducted by the Taranaki Brass Bands' Union, to be held at Eltham on Thursday, March 13, has drawn an entry of eleven bands, including two pipe bands. The Quickstep will take place during the afternoon and the final selection will be played at night in the open air at Taumata Park. The evening programme will be relayed by 2YA.

From a Lonely Lighthouse Keeper

A TRIBUTE to the value of broadcasting comes from a lighthouse keeper on Stephen Island. It speaks for itself:—

"Hearing an announcement made from 2YA recently, reminded me that I had not thanked you for the way in which you had arranged to have us keepers advised of the Tutaneke's arrivals and departures.

"I must say that there are no half-measures about you people, you do a thing thoroughly, and the service that we receive from your stations leaves nothing to be desired. Just what a receiving set means in a lightkeeper's home, when the lightkeeper can keep in touch with all that is going on, just as the city dweller, who can get his daily paper, can easily be imagined. The island stations, some of them with a mail once a month only, are no longer left out in the cold.

"With your excellent news sessions, concert programmes and even children's sessions, well, one has to be placed as we are to realise fully what a difference it all makes. I thank you most heartily for the manner in which you met my request for the announcements re the s.s. Tutaneke, and wish your company every success.—Yours faithfully,

"(Sgd.) GEORGE AGER."

Lifelike Realzin

Radio at Its Best

ON a recent evening Mr. Will Appleton, managing director of the Charles Haines Advertising Agency, Ltd., broadcast from 2YA an interesting talk about his recent world tour. When this took place, Mr. Bennett, manager of the Bristol Piano Company's Wellington house, happened to be spending a holiday with a relative in Central Otago, some 200 miles inland from Dunedin. Mr. Bennett, was an interested listener, particularly as he is personally acquainted with Mr. Appleton, whose voice, he says, came through with remarkable clarity. "It was as though he were speaking in the room, and, recognising the voice as I did, it gave me a wonderful thrill. It was to me a realistic revelation of the marvel of radio. As never before I realised what this wonderful service must mean to those who live in lonely places."

Ocean Yacht Race

Signals Heard in Auckland

IT IS interesting to note the distance over which signals from a small portable transmitter can be heard. We have recently been advised that the signals from the transmitter operating on the yacht "Marangi" during the Ocean race a few weeks ago were picked up in Auckland. The yacht was skippered by Mr. R. Mellor, as her owner, Mr. Scott Ramsay, was indisposed.

Radio Literature

Largest stocks south of the line for Amateurs and Broadcasters. "Radio Manual." Published Price 25/-, postage 1/-. "Citizens' Radio Call Book Magazine." 2/6 posted. Write us.

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The beauty of Sydal is its simplicity in use. Just the smallest quantity, well rubbed in, will do wonders. Try it for all the skin troubles of the family. Persuade your husband to use a little before shaving. It will improve his temper! Buy him a jar!!

Soviet Control Uncertain

Radio Reveals Position

EVIDENCE that the Soviet Government is meeting with considerable opposition from a section of the better class farmers in Russia, and that the "Five yearly Plan" inaugurated by the Soviet is not progressing as well as Dictator Stalin desires, was forthcoming Friday last. Our representative, together with Colonel Shebalin (late of Russia) listened in for a considerable time on Friday night, and the following translation indicates what took place.

A huge meeting was held at the theatre in Kharbarovsk, the chief speaker being the Commissar of Kharbarovsk. A Commissar is really the local head representative of the Soviet or Communist party, appointed by the dictator. He is the temporary city manager.

The meeting was relayed through Station RA97, Siberia. The first speaker said: "Owing to the workers not being well organised, the five years plan as outlined by the Soviet is not meeting with much success so far, and the workers must organise and make better preparation for the future."

"The Soviet Government wants everyone to advise it as to the position regarding their local organisations, and to inform the Government of any suggestions they may have for the better organising of the workers; and also to advise the Soviet by letter of any persons committing sabotage," continued the speaker.

An interval of 15 minutes was announced, but actually it was 40. Continuing the relay from the theatre, another speaker said: "Numbers of peasants do not like working under the Soviet new system; the reason is the propaganda Kulak (rich peasant). We must organise the workmen, and the Red army, and prepare to break up the Kulaks, and confiscate their implements and possessions. If you don't do this it means that Russia cannot hope to remain a Communist country, but will fall back again into the hands of the capitalists."

The Commissar of Kharbarovsk then addressed the meeting, and appealed for a special agitation amongst the peasants. In a sarcastic voice he said: "All Europe is preparing to defeat the Soviet, and wage a religious war against our ideals, and we must be prepared to fight these believers in Christ."

"Europe is at present holding a great Naval Conference in London, and is talking a lot about curtailing navies, battleships, and other war weapons. What have they achieved?" asked the Commissar. "Nothing! The Conference is nothing but bluff," shouted the speaker with derision and ridicule. "There's too much talk. After the Conference, the powers will have bigger fleets still." The Commissar appealed to Russian workmen and the Red Army "not to worry about Europe or their Conference." He told the meeting that the peasants fail to realise and understand the Soviet's instructions regarding the new system which was commenced by the Soviet, relative to handing over of wheat and other products to the Soviet.

"The result of this misunderstanding may be a famine," said the speaker.

Power Line Interference at Eastbourne

Listeners Demand Immediate Remedy

DURING the past few weeks complaints have been received from listeners in Eastbourne concerning power-line interference. The following letter from Mr. Birkett, a radio dealer of Eastbourne, is typical of others received and of verbal complaints made. They indicate that immediate action on the part of the Hutt Valley Power Board is desirable.

I HAVE read with interest the letter from "Fed Right Up" in your issue of February 28 regarding power-line interference at Eastbourne, and thoroughly endorse the statements made. "Fed Right Up" has by no means exaggerated the position; in fact, if anything, conditions are infinitely worse than outlined. I am a radio dealer operating in Eastbourne and I can, if necessary, give various definite instances where I have lost sales of high-priced radio sets due entirely to the interference. Within the last fortnight two sales were lost in this way. In fairness to the many listeners-in and to the development of radio sales in Eastbourne, something should be done immediately to remedy this interference, and I trust the Hutt Valley Power Board will realise their responsibility and investigate the matter.—H. Birkett (Eastbourne).

An extract from the complaint signed "Fed Right Up," the correspondent referred to by Mr. Birkett, reveals the overwhelming nature of the interference. "It is absolutely impossible to tune in even Christchurch, let alone more distant New Zealand stations, due to power leaks on the high tension lines passing along the main road. The interference is not merely an occasional crackle, but a continuous nerve-racking clatter, as if a buzzer was doing its best to deafen one. I find that it comes into the picture at about 600 kilocycles, and as one goes up, so it increases, until at 1000 or over it is nothing short of a deafening roar. Of course, I can get 2YA without any interference, as the reception is perfect without using the aerial, but immediately the aerial is connected, this clatter spoils everything, making it impossible to get Dunedin, Auckland or Christchurch, Australian stations, of course, being absolutely impossible."

"The peasants are following in the footsteps of the Kulaks; the Kulak is like poison for the peasant people." After the Commissar of Kharbarovsk had finished his address, music, including an operatic duet from the "Spade Queen," with orchestral accompaniment, was broadcast.

Colonel Shebalin, during a general discussion on the Russian situation, explained that the Kulaks would naturally try and persuade the peasants to assist in combating the Soviet's confiscation of the farmers' products. The Kulaks did not like the Soviet demanding all they produced and possessed.

IN an endeavour to ascertain the extent of the trouble, our representative visited Eastbourne and personally investigated the matter. It was found that the reports received were in no way exaggerated, and that reception of stations necessitating the use of an aerial was completely spoilt by power-line interference. It appears that the trouble is prevalent along the main road and along the seafront as far as the Rona Bay pier. Fortunately in other localities interference is for the most part entirely absent.

Mr. Birkett informed our representative that in three cases during the past few weeks he had installed expensive sets in the homes of prospective purchasers. In every instance, however, a demonstration had convinced the would-be set owners of the futility of securing even passable reception, and he had been justly compelled to dismantle the sets. In fact, our representative met one lady who stated definitely that when the trouble was rectified she would purchase a set, but until then she refused to consider the matter.

THE statement made by "Fed Right Up" that it is possible to see the discharges responsible for the interference was found to be correct. On walking down the main road during the evening one can both see and hear the sparks discharging intermittently across the insulators.

Such a state of affairs is deplorable, especially when it is realised that owing to the distance separating Eastbourne and Wellington many residents rely solely on radio as a means of entertainment. In the past such interference has been very prevalent in and around the city of Wellington, but owing to the fairness and consideration shown towards listeners by the various bodies responsible for the control of power lines, trouble of this nature is now almost a thing of the past. It is to be hoped the Hutt Valley Power Board will not delay in taking prompt action in this matter and so earn the gratitude of every listener in the affected area.

The Art of Good Listening

Criticism of Programmes

SOME people have a most curious way of criticising the broadcasting programmes. They don't listen, and yet, strangely enough, feel perfectly competent to find fault with items they haven't heard.

"We never listen in to 'X.Y.Z.," they declare, "because the programmes are no good."

"But," you ask, "didn't you hear that programme that was put over the air on Friday night?"

"No, we didn't bother," is the usual reply, "but we're sure it wasn't up to much!"

The British Broadcasting Corporation has issued a bulletin specially for the edification of their vast public, and we have pleasure in passing on a few extracts to our fellow listeners, on "The Art of Good Listening."

(1) Make sure that your set is working properly, before you settle down to listen.

(2) Choose your programmes as carefully as you choose which theatre to go to. It is just as important to you to enjoy yourself at home as in the theatre.

(3) Listen as carefully at home as you do in the theatre or concert hall. You can't get the best out of a programme if your mind is wandering or if you are playing bridge or reading. Give it your full attention. Try turning out the lights so that your eye is not caught by familiar objects in the room. Your imagination will be twice as vivid.

(4) If you only listen with half an ear, you haven't the quarter of a right to criticise.

(5) Think of your favourite occupation. Don't you like a change sometimes? Give the wireless a rest now and then.

Police Radio

HIGH-POWERED cruising automobiles fitted with receiving sets on which messages describing bank-baudits, missing girls, and fugitives from the police can be picked up from headquarters is to be the future equipment of the Montreal police if the plans now awaiting presentation to the City Council are finally approved. In many of police communication are in use, other Canadian towns similar systems and are regarded as indispensable.

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With GRAMOPHONE and RADIO

By "B NATURAL"

The Motor and the Turntable.

THE turntable will receive consideration first for it is nearer the surface and its defects are the more obvious. Strictly speaking, the majority of turntables do not preserve a perfectly true running plane. The plane is not a true horizontal one, and if the eye is lowered to the level of the turntable so that the revolutions of the latter can be viewed edge on, or if, for more accurate measurements, a simple cardboard gauge be made and placed against the turntable, it will be seen that there is a slight periodic sway in the turntable as it revolves at normal speeds. The consequence is that unequal pressure between needle and record is liable to be set up, and a certain amount of record wear created.

Sometimes, however, a badly running turntable can be made to revolve more truly by the simple expedient of attending to the spacing washers on the bolts which hold the motor to the motor board.

OCASIONALLY the baize or whatever material the turntable is covered with comes loose at the edges, especially if the machine has been kept for a long time in a damp atmosphere. Now, baize which has even slightly become loosened at the edges should be stuck down immediately with a little hot glue solution, because in such a condition the turntable baize will present inequalities of surface and so will interfere with the correct playing of the record.

The tendency of modern gramophone design is to lighten weight wherever possible, and in some of the portable instruments which may be equipped for electrical playing the turntable may be on the light side. In such a case there may be a slight flattening of pitch on loud notes, due to the inability of the turntable to carry the record over these notes at constant speed.

The Rubber Mat.

AN excellent remedy for light turntables is a rubber pad (obtainable from most gramophone and radio-gramophone specialists) placed over the turntable. This acts as a non-skid device for the record, and used on a light turntable, or one of small diameter, it will enable the loudest record to be played without detriment to tonal quality.

The rubber turntable mat has other virtues as well. It insulates the record from the turntable, and so damps any extrinsic vibrations which may reach the record from below. It helps to reduce surface noise and pick-up chatter when it occurs is less noticeable, a valuable feature in a great many cases.

The Gramophone Motor.

BY FAR the most important consideration as far as the motor is concerned is the speed for pitch, an important determinative of quality is governed by it. There is, however, in this subject enough matter to make a separate article and for this it will be left for the present.

One can do little to the mechanics of the gramophone motor, its functioning is extremely complicated and repairs and adjustments must be left to a skilled tradesman. With the electric motor, there is very little that can go wrong. It will function happily for years if carefully oiled and dusted. Every now and again the turntable should be lifted off and the bearings cleaned and oiled. The turntable in the majority of cases will lift off the motor spindle by giving it a steady upward pull. It is advisable to keep the thumb on the top of the spindle to prevent the weight of the pull being transferred to the motor, where it might do damage.

Having lifted off the turntable, clean the various moving parts and oil them with very fine machine oil. With the electric motor the points to be oiled are fewer. They are, the spindle, the bearings and the brake mechanism. If an electric cut-off is used, do not oil any part of the contacts, otherwise the oil will prevent a good contact and the running of the motor will be erratic.

Careful oiling and cleanliness will do much in making for reliability of the motor, while it must not be forgotten that even and silent running are essential to really good gramophone reproduction.

Celebrities

Chopin, the Lonely Exile

PADEREWSKI has said of Chopin that he was the priest who carried to the scattered Poles the sacrament of nationalism. This fine image vividly recalls the revolution of 1830; the last despairing effort of Poland to rid herself of Russian suzerainty. Chopin, a boy of twenty, had left Poland only a few weeks before the revolution broke out. He was alone in an unfriendly city, hungering for news of his home, which came only at long intervals; a prey to fears which only a torturing imagination could raise. He wandered from Vienna to Munich, from Munich to Stuttgart, where on September 8, 1831, he heard of the collapse of the revolution and the capture of Warsaw by the Russians.

IN discussing quality, the fashionable topic of conversation to-day, the usual line of talk is the amplifier, the pick-up and the record—important aspects, certainly, but not the only ones entering into the question. The turntable and the motor both greatly effect the quality of the reproduction and it is our purpose in this week's article to attack the question of quality from this point of view, that even the most untechnical listener might look to to the betterment of reproducer and reproduction alike. Our article this week is written especially for these listeners.

From that day one must think of him always as the exile, bearing in his heart a permanent wound, the tragedy of his people. Their songs, their dances—and in Poland the very ballads of the country are dances—became the warp and woof of his music. She is the land of the dance—polonaise, krakowiak, mazurka—and the rhythm of Polish dance sounds through nearly the whole of his work.

When he left home, he had a presentiment that he would never return. His friends gave him a silver cup filled with Polish earth. This he kept by him all his life. It was this earth that, when he died, they scattered on his coffin at Pere Lachaise. It was all that remained of Poland, save in his music; those "few score pages in which," as has been beautifully said, "were to burn for three-quarters of a century the mysticism of a nation."

The appearance of Chopin made beautiful images in the minds of those who were his friends. To Schumann, before ever they met one another, the printed page of his music, the very notes, seemed as marvellous eyes regarding him. To Liszt he was "a convolvulus, balancing its azure-hued cup on a very slight stem"; to Georges Sand "an angel, fair of face as a tall, sad woman." It is not difficult to picture him; the frail figure, exquisitely dressed; the long hair, very fair and soft, framing a face which was ashen-pale, and of which every feature betrayed an intense sensitiveness; the huge brown eyes that burned with the fires of consumption.

He was wholly urban; the child of the salon and shaded candle-light. . . . Life, surrounding him with comfort, shielding him from the sordid, and from life's pettier cares, but that he might be free to receive her deeper wounds. There was nothing upon which his heart fastened that did not bring him sorrow. Many pages of his music stand for tragedies of the heart at which we dare not look save in the mirror of waltz, prelude, or ballade. The G Minor Ballade: We little remember in what fires of suffering this music was forged. It was his requiem to the dead love of Marie Wodzinska, whose letters and the rose she gave him were found after his death in a packet upon which he had written "Moja Bieda": my grief.

His piano was his only confidant. He used it, said Liszt, to play to himself his own tragedy. In Paris, in some drawingroom, where his intimate friends were gathered, and, above all, his fellow-exiles, he would take some familiar rhythm of the Fatherland, whisper it first, then utter it more boldly, then toss it about in wild abandon, till the great plains, the great forests of Poland rose before eyes set in a

trance of memory. Often these improvisations furnished the germ of music we know. When the tragic news of the capture of Warsaw reached him, he turned to his piano, and in a passion of overwhelming grief poured out a torrent of improvisation which was later to become the "Etude in C Minor," the "Revolutionary." The "Sixth Prelude" was the child of a hideous hour of fear in the deserted Charterhouse of Valdemosa, while the storm beat piteously on the roof, and Chopin left alone for the day had imagined his friend to be dead and himself to be dead, too, and was found, when his friend returned, playing the music like one in a dream, and cried out: "Ah, I knew that you were dead!" But then the music went through a veritable crucible before it was given to the world. Flaubert is said to have spent an entire day over the polishing of a single sentence: Chopin spent weeks, behind locked doors, working at each phrase and bar, in an agony of choice, under an imperious need for absolute perfection.

He had settled in Paris amid the last thunder of the revolution that set Louis Philippe upon the throne; he was driven from Paris in 1848 by the first that heralded the Second Republic. He came to England. The beautiful friendship with Georges Sand was broken, never to mend, and the power of composition was gone; he was already a dying man. He gave concerts—a thing he hated—because he would send no more of his manuscripts to the publisher; he had no longer the strength to labour at them, and he would buy nothing at the price of work he could not pass. In the following May he burnt them.

He was received everywhere. He was introduced to such oddly different persons as the old Duke of Wellington and Dickens. Throughout his stay he was the guest of one or other of the great houses.

All the time an intolerable nostalgia turned his thoughts to Paris. He went back in the spring of 1849. Again life took thought for him and brought him the friends who saw that he should not want. For now he was penniless. Those who watched at his bedside were almost all his fellow-countrymen: the Abbe Jelowicki, the friend of his childhood, who gave him the Last Sacraments; Princess Czartoryska, who nursed him; and the beautiful Countess Potocka, whose voice singing to him was the last music he heard, a few hours before he died.

Almost his final word was to Franchomme, the violoncellist, "Play Mozart in memory of me." Among many epitaphs, the most beautiful was perhaps that of Schumann, who wrote: "The soul of music has passed over the world."

Auckland Notes

(By "Call Up.")

LECTURES set down for delivery to the Auckland Radio Society are as follow:—March 17, "Power Amplifiers and Loudspeakers," by Mr. R. E. Granger; April 7, "Listening on Short Waves," by Mr. Mark Churton; and April 21, "How to Become an Amateur Transmitter," by Mr. H. B. Arthur. A series of further lectures is being arranged and details will be announced shortly.

RECEPTION conditions have been very good locally during the last fortnight. Southern stations are all

Novelty for Tuesday Evening

AT midnight on Tuesday station 2YA will be on the air relaying from 4YA, Dunedin, a conversation between Admiral Byrd and various important personages in New York. One of these will be the principal proprietor of the "New York Times." Stations 1YA, 3YA and 4YA will also broadcast the American conversations, and if possible 2YA will do this, but there is a danger of "feed back." Owners of high-grade sets, therefore, would be well advised, if they wish to hear both conversations, to tune in with one or other of the outside stations. Owners of crystal sets in Wellington will hear only the conversation by Admiral Byrd.

Tests in connection with this transmission were conducted from midnight Monday, and a full conversation was held on Sunday night (reported elsewhere). The procedure in connection with these broadcasts is for Dunedin to transmit to Wellington by land-line. Wellington's relay is picked up by Sydney and transmitted by short-wave to New York.

coming in well, while reception of Australia has shown a marked improvement. Now that the sun is moving away from us we may expect a continued spell of good reception of distant stations.

FURTHER sad news for Auckland Rugby football enthusiasts who listen in. Mr. R. J. Meredith, who earned such popularity by his graphic broadcast descriptions of local Rugby matches last winter, will not be here to continue the work this year. He has gone to Rotorua to manage the Palace Hotel, and will be greatly missed by Auckland Rugby enthusiasts and listeners. Gordon Hutter, another very popular man before the microphone, will take Mr. Meredith's place.

The celebrations in connection with the opening of the Auckland Electric Power Board's new building were broadcast by 1YA on the afternoon of Thursday, March 6. The building is a magnificent edifice, standing on the corner of Queen and Durham Streets,

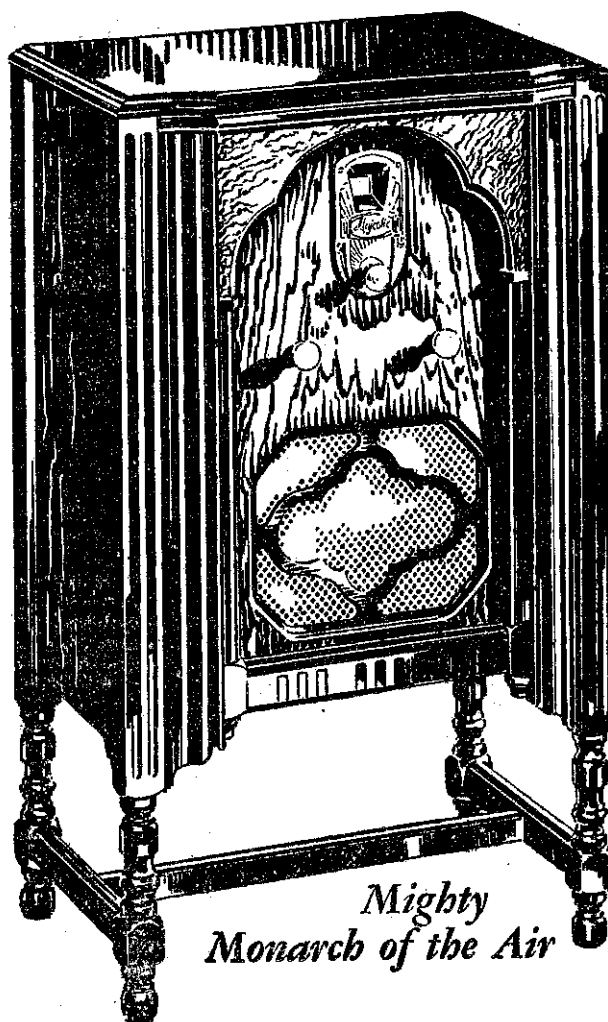
and attracts much attention from passers-by at night, when it is beautifully illuminated with pink and green coloured lights. "Call Up" was surprised to notice that it is heated throughout by steam heaters!

THE pantomime "Dick Whittington," presented by 1YA on Thursday, February 27, was an undoubted success, and it is to be sincerely hoped that arrangements can be made for the show to be given by at least one of the other YA stations. There were one or two minor defects in 1YA's presentation, but on the whole it was a most praiseworthy effort and gave listeners a novel and entertaining evening. The sound effects, in general, were very good, and a number of listeners wonder how some of them were obtained. The babbling brook was imitated by blowing through the spout of a kettle filled with water, and the birds which sang were not feathered, but made of celluloid, and also filled with water. Other effects were obtained with the aid of old motor horns, toys, and other simple apparatus.

THE wrestling match between George Walker and Fred Ebert at the Town Hall on Monday, March 3, provided 1YA listeners with a piece of highly exciting entertainment. The contest was what is popularly known as "wild and woolly," and terminated so far as listeners were concerned when one of the wrestlers pushed the referee into the ropes and knocked the microphone over. The microphone was smashed, but as it was the final round listeners did not miss very much. The local wrestling association have always realised the benefits of having their contests broadcast, and have profited accordingly. It will be remembered that a month or two ago the Northern Boxing Association decided against the broadcasting of the Thomas-Macdonald contest, and a very poor house resulted. This association have now changed their minds again, and want future contests to be put over the air.

A Music Combination

THE Radio Music Company, a new music organisation by which there will be effected a combination of two leading music publishers and the National Broadcasting Company, has recently been announced in New York. Mr. Aylesworth, president of the N.B.C. and chairman of the new company, recently pointed out that the alliance between the new organisation and the broadcasters will assure composers of a real audience for their best efforts and from them in turn the radio audience will demand their best efforts. It was also stated that although the new company will be a commercial music-publishing venture, it is intended that the scope of its activities will be so broad that its real objective will not be primarily in profits, but in making an active and intelligent use of the tremendous facilities—the NBC system—placed at its disposal for the purpose of enhancing and improving the whole trend of American music.



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Please send me full particulars of Majestic Radio Models and arrange for a demonstration in my home.
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A Maori Broadcast

THURSDAY last 2BL (Sydney) broadcast a special programme of Maori music and songs for New Zealand listeners, including compositions by Mr. Alfred Hill. The broadcast was termed "The Land of the Long White Cloud." Mr. C. N. Bayertz, well known to New Zealand as a musical critic, spoke about New Zealand, and lectured on the "Legend of Hinemoa and Tutanekai." Miss Hazel Fuller, soprano, late of Wellington, sang "Waiata Poi," and the New South Wales Broadcasting Orchestra also played the same piece and other delightful Maori music. The beauties of New Zealand were referred to the speaker in humorous vein, stating that New Zealanders desired to make money to go somewhere else, whereas a Scotchman wanted to go somewhere to make money. Invercargill had a harbour, but it was all "bluff," stated the speaker. Wellington was the capital of New Zealand, but really New Zealand was the capital of Wellington, was another witty remark. New Zealand bird life was dealt with at very great length. "Komate," composed by a Maori, was sung with orchestral accompaniment, and Miss Hazel Fuller also sang "Home, Little Maori, Home." There were many other items in the special programme. This programme was being rendered at the same time that the Australian farmers' delegation were speaking to Australian listeners from 2YA. Station 2BL called up 2YA and 1YA, and New Zealand listeners in general advising them beforehand what was to be broadcast from Sydney.

A New Amateur

AMATEUR transmitters will be interested to know of a new short-wave station on the air. It is operated by Mr. J. F. Gabites, and the address is 445 Marshland Road, Christchurch.

THE D.X. CLUB

Views and News.

Identification Wanted

DID anyone log a station on about 31 metres on Sunday, 23/2/30? I heard the announcer say: "If you understand 'potential,' write it down." He added that he had repeated 100 words. I heard him from 10.20 p.m. till about 10.28 p.m., and I fancied he closed with the words, "The caller, R.B.A." but I am not positive. The next evening I heard a voice very similar on the same wavelength at 7.45 p.m., speaking in German or Dutch. He seemed to be repeating the same sentences.—G. H. Chambers (Christchurch).

LISTENING-IN on my shortwave set at about 9.30 p.m. on March 7, I heard a station operating on about 26 metres, which at that time was playing records. I listened for a few minutes to this station, when I heard its call sign announced as KAIXR. This station was calling PLE, Java. After the call sign was announced (which was in English) all other talk was foreign. This station seems a new one to me. Could anyone advise me where this is situated?—F. O. Evans (Eketahuna).

Stations Identified

IN a recent issue Mr. R. E. Marsh (Rotorua) requires identification of a station on 210 metres (1400 k.c.s.). This is more than likely 2HD, Newcastle, N.S.W., for to-night I had this

station on that frequency at 9 o'clock at good volume. This station I gave as approx. 1330 k.c.s. (225 metres) in the issue of February 21, but I notice the wavelength has since dropped, as the dial reading was 8; it is now 6. To-night (February 28), I logged WEAR, Cleveland, Ohio, at good speaker strength (though static was bad) at 7.45 p.m.; also WENR at 8 o'clock, exactly as I was turning to 1YA, Auckland, when I picked it up on a dance item with vocal refrain. There was little interference from 1YA, and 2BL was inaudible, too. I see that WEAR is marked as not being heard in N.Z. before, but in the latest "Record" I see that two listeners have logged it. Re KTM (that is the call), I logged it on January 24, and on February 10 I heard an announcement to the effect that they would be on regularly Sunday night and Monday morning, with a dance and concert programme. KTM was also heard early last Saturday afternoon. WHK I logged February 5 (Wednesday) at fair volume. Conditions for receiving seem to be improving, for 5CL and 6WF made a re-appearance at good strength last night, while 2BL and 2FC were excellent.—Arthur E. Allen (Avondale).

RE STATION just below 1400 k.c. (214 metres), which has been the cause of several inquiries lately, "Switch" is correct in his supposition that this is "2HD, Newcastle," which has lately come on the air. Last night, Wednesday, the 5th, I succeeded in getting his call. The station has a pronounced hum, and is subject to lengthy periods of fading and distortion, and though music can be heard all through, it is only on the peak that speech can be understood. Last evening they seemed to be on a gramophone programme, interspersed with advertisements. At 9.35 (N.Z. summer time) they were transmitting "Silver Threads Among the Gold." At 9.40, by request of (name missed), "The Wedding of the Painted Doll." A correspondent recently asked concerning a station heard on 725 k.c. (413 metres), after 2YA closed down. This is 5CL, Adelaide.—G. W. O'Sullivan (Trentham Camp).

IN THE ISSUE dated February 28, Mr. McConachie (Gore) stated that he had heard three stations that he was unable to identify. The station on 1080 k.c. (278 metres) is 420, Dunedin; the one on 1150 k.c. (261 metres) is 4ZP, Invercargill; and the one on 1200 k.c. (250 metres), I think, is 4ZL, Dunedin.—J. Stewart (Southland).

Amateur Transmitters

MR. C. R. CLARK, Radio ZL2AW (Wellington), writes: I think the record for reception on the broadcast band undoubtedly belongs to Mr. J. Mills, of Hastings, now known as radio ZL2BE. He has received 56 American stations on

the broadcast band, and I have seen the verification cards he has received from 42 of them. These, in conjunction with Australasian stations received, made up a great number. I have been a transmitting amateur for six years, and have had two-way communication with 200 stations in all parts of the world. Confirmation has been received from 100. During this period, a great number of amateurs have tried four, so that I can safely say by log is over 500. Some years ago, two-way communication with Australian amateurs was regarded as DX work, but the only real DX I heard then was ANE and PKX, Java, and the amateur 2NM in England talking to 3BQ, Melbourne, on 3500 k.c. (80 metres). This was received on two valves. A few days ago a Frenchman, FSAXQ, and a station in Peru, O4AT, spoke to me on 14,000 k.c. (20 metres). Did anyone else hear them? I notice Mr. Morrison states in his letter re an amateur in Alaska that the latter has a power of 150 volts. I presume he meant 150 watts, as power is rated in watts. This power could easily reach here on the 3500 k.c. (80 metres) band. Mr. Mills (Hastings) and myself both use 150 watts input on 3500 k.c., and we have been logged in the States. Mr. Mills, however, holds the best record, as he has a very fine fone station—probably the best in New Zealand on the amateur band.

Short-wave News

"SUPER," writing of radio conditions in Taranaki, states: Reception during the last two weeks has been poor, for static has spoiled the programmes. On Monday, February 17, PLE put on a very fine selection of records at 11 p.m. and continued until about midnight. Reception was by far the best I have ever had on short waves. On Friday, February 21 and also on March 1, 3ZC, Christchurch were on the air on about 45 metres. I was using a new set of coils and am therefore just making a rough calculation as to wavelength. They came through at full speaker volume from about 7.20 p.m. until I shut down at 8 p.m. So far I have not seen any report on their transmission in the "Record."

Taking reception over the last two weeks, W6XN has been the best station, with 9XAF next.

LAST week I received a verification of W2XAL, and it may be of interest to short-wave enthusiasts to know that this station expects to be testing on different frequencies. The power of W2XAL is gradually being increased for regular international broadcasting, and the frequencies to be used are 11,800, 15,250 and 21,460 k.c. respectively. The address of W2XAL is: The Aviation Radio Station, 27 West Fifty-seventh Street, New York City. A new station using the call sign of GBP was heard one evening last week on a wave slightly lower than GBX, Rugby. Has any listener heard the Java station working on about 27.5 metres? I have heard him every evening lately, but failed to get his call.—A. D. Rogers (Newtown).

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Friday's Programme.

LATELY we have heard a great deal concerning the quality of the programmes from 2YA, and to my mind much of the adverse criticism is due to the arrangement of the programmes; in particular those on Friday night. On this night 2YA is at its best, and most of the listeners are out. Here in Petone most of them are shopping, as the local industries make this night "pay night." I think that if the quality of the Friday night's programme were transferred to, say, Thursday night, much of the unjust criticism would become hushed. — "Change Over" (Petone).

Banning "All Black" Broadcasts.

THE Rugby Union has emulated its sister sporting (?) body the Racing Conference and prohibited Saturday broadcasting. It does seem as if the sporting bodies are losing sight of the sporting side of the game, and are concentrating on the financial side. From what I can see of sporting bodies a large number of them seem only too keen to seek the help of the broadcasting authorities to popularise their particular branch of sport. Immediately the radio has done its share to build up their game they take a very selfish view, and by prohibiting broadcasting try to force a few more town people to patronise their sport, without any regard for the thousands of people throughout the country, more particularly in the back-blocks, who are unable to attend. More particularly does this seem selfish and parochial at a time like this when the Government is trying to popularise country life and encourage more people to leave the towns and its comforts. I landed home from the war at the age of 21, and immediately went into the back-blocks and trod the hard and narrow path. Though through the war I am totally unfit to play the good old game, I take a keen interest in Rugby, mostly per medium of radio. You can imagine, then, the feelings of one situated as I am, when the daily paper announces the refusal of the Rugby Union to allow broadcasting because it may affect the receipts at club fixtures. Besides, the many country listeners, let me appeal on behalf of the many soldiers and others in hospitals. Then, again, Australia broadcast our All Black test — are we not under an obligation to them to broadcast our international fixtures. Perhaps it is not too late for the Rugby Union to reconsider its decision in favour of the popular feeling of the general public, and so demonstrate that they are indeed a sporting body. — Digger (South Canterbury).

Broadcasting the Sound Film.

BELIEVING that others agree with my views, I write to thank the Broadcasting Company for being good enough to relay certain execrable items from sound picture theatres of late. I have many listener friends who resent the company's action in broadcasting such poor entertainment, and who cannot bring themselves to believe it right that their license fees should be employed on film advertising of such a blatant kind. Proprietors of silent picture theatre houses, too, feel that an injustice is being done them by this form of advertising, in which they cannot participate. In any case, we are a British community and, wishing to preserve British ideals, do not want to



Will correspondents please practice brevity, as heavy demands are now made on space. All letters must be signed and address given as proof of genuineness; noms de plume for publication are permitted. Address correspondence Editor, "Radio Record," P.O. Box 1032, Wellington.

be surfeited with American nasal twang and cheap and nasty forms of American "music," either vocal or instrumental: the Americanisation of Australia and New Zealand has gone too far already without the Broadcasting Company furthering the process. If thousands of misguided people do patronise the American sound pictures, they do so voluntarily, but wireless listeners have no option but to switch off their sets when these are broadcast, particularly as they are unable to grasp the nature of the picture in the absence of tele-

vising apparatus. Let the Broadcasting Company leave the sound film alone; they are run by powerful business interests who should be kept off the air, even if they are prepared to spend generously in their method of renting and sending it. — K. Swiney (Northland).

Rugby Broadcasts.

I READ with disgust the action of the Rugby Union in deciding to forbid the broadcasting of the matches in connection with the tour of the British

team this year, and especially in not allowing the four Tests to be broadcast. As an old footballer with no possible chance of seeing any match, I was consoling myself with the fact that I would be able to hear a running description of, at least, the tests, but, alas, it is not to be. Messrs. Deans and Co., in their wisdom, have decided that if one lives in the country and cannot attend any matches, one will have to be satisfied with a report in cold print, instead of a lively description by an excellent narrator, with the shouts of the crowd thrown in.

The reason given for the ban is that club football will suffer. I wonder! If, say, the tests were broadcast, the club matches in the country districts on those days would probably suffer, but not so the city clubs, because it is a certainty that all players living in or near the city in which a test is to be played, and able to attend, will do so. I wonder whether Messrs. Deans and Co. will practise what they preach. It is up to all country players, and others, who wish to hear a broadcast of at least the tests, to bring pressure to bear on the Rugby Union with a view to having the ban lifted. — "Fan" (Kai-koura).

For
"TRIALS IN TACT"
(See page 27.)

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Next Week's Features

Features from 1YA

ON Sunday evening, March 16, the service will be relayed from Church of Christ, West Street, the preacher being Pastor William Campbell. This will be followed by a concert by the Auckland Municipal Band under the conductorship of Mr. Christopher Smith from the Town Hall.

THERE will be two talks during the news session on Tuesday evening. At 7.15 Mr. George Campbell will be heard, his theme being "Motoring." At 7.40 Mr. F. E. MacKenzie, president of the Auckland Acclimatisation Society, will talk on "Native Bird Life." This is one of the series of talks arranged by the Auckland Zoological Society. In the evening's concert programme, which will be of an operatic nature, the 1YA Orchestral Octet, under the direction of Mr. Eric Waters, will play selections from "Faust," "The Rebel Maid," "To-night's the Night," and "The Gaiety Girl." Mrs. Ferda Evans, soprano, is singing three very delightful numbers from lighter operas, including "Love Me Now" (from "Madame Pompadour"), "Star of Fate" (from "Catherine"), and "Dreamland Lover" (from "Betty in Mayfair"). Mr. H. Barry Coney, one of New Zealand's finest baritones, will sing the operatic numbers, "Il Balen" (from "Il Trovatore"), "The Heart Bowed Down" (from "The Bohemian Girl"), and "Vision Fugitive" (from "Herodiade"). Miss Doris Moore (contralto) will also be heard in operatic solos. A further topical talk will be given by Mr. A. B. Chappell, and Mr. Cyril Towsey will be heard in the two pianoforte solos, "Impromptu in A Flat" and "Impromptu in C Sharp Minor," both by Chopin. During the evening excerpts from the "talkies" at the Majestic Theatre will be relayed.

MADAME MABEL MILNE will continue her talks of Health and Diet on Wednesday evening. A very inter-

esting studio programme has been arranged and instrumental numbers will be played by Bert Kingsland's Saxophone Quartet. Many listeners have expressed their appreciation of the Clarsax Duo. This duo, in conjunction with two other saxophone players make up the quartet. Mr. and Mrs. W. Scott, also very popular performers, will give two piano and vocal recitals. Mrs. B. Jellard, contralto, and Mrs. J. Le Pettit will be heard in vocal solos. Mr. Zante Wood will be associated with Mrs. Le Pettit in particularly fine humorous items. Concluding the programme will be a gramophone lecture-recital by Mr. Karl Atkinson, entitled "Echoes of St. Patrick's Day."

CONDITIONS being favourable on Thursday evening, a rebroadcast of 2YA of the welcome to Lord and Lady Bledisloe in the Town Hall, Wellington, will be the feature of the evening.

ON Friday evening the usual relay from Lewis Eady Hall of the latest instrumental and vocal music will take place from 8 p.m. to 8.30. The rest of the programme from the studio will be given by the New Zealand Four, consisting of Messrs. James Simpson, Roy Dorrner, Eric Mannall, and Duncan Black. These artists will be heard in solos, duets, and quartets. Miss Maisie Carte-Lloyd will present elocutionary items, and the Studio Trio will play "Melody in D" (Faure), "Slavonic Dance No. 16" (Dvorak) and "Four Bavarian Waltzes" (Franck). Miss Molly Wright, cellist, will be heard in the two solos, "Antilena" (Gottschalk) and "Piece en forme d'Habanera" (Revel).

ON Saturday evening there will be a relay of the concert to be given in the Town Hall by the Auckland Municipal Band under the conductorship of Mr. Christopher Smith. As is usual with these programmes, some very fine instrumental selections will be heard.

Features from 2YA

THE evening service of St. Andrew's Presbyterian Church will be relayed on Sunday, March 16. The preacher will be Rev. R. J. Howie, B.A., and the organist and choirmaster Mr. Frank Thomas. The studio concert to be given at the conclusion of the service will be by the Wellington Artillery Band, who will be assisted by Mrs. P. J. Townley (contralto), Mr. S. Evelyn Rodger (baritone) and Mr. Les Stapp (tenor). The latter, who is making his first appearance before the microphone, is the possessor of a pleasing tenor voice which he has to advantage in his various numbers. The band items will include the overture, "The Golden Sceptre," a horn trio, an operatic selection and several other items.

"BOOKS—Grave and Gay," will be the subject of Mr. H. C. South's talk on Monday evening, March 17. This being St. Patrick's Day, a programme in keeping with the occasion will be presented. It will consist of a relay from the Town Hall, where a St. Patrick's Day concert is to be given. A feature of the programme will be items by the 2YA Orchestrina, which is assisting at the entertainment.

TUESDAY evening's programme will serve to introduce a new combination to listeners in the persons of Mr. Douglas Stark and Miss Maisie Oakes, who will entertain listeners with humorous items, popular songs and light vocal duets. Mr. Douglas Stark is already well known as an exponent of Scottish humour of the Lander type, but Miss Maisie Oakes is a comparatively new artist. Mr. Claude Moss and Miss Phyllis Martin will also appear on this programme. The former will be heard in several ballad numbers and the latter in several solos from musical comedies. A feature of the instrumental portion of the programme will be two trios by Messrs. W. Haydock, S. Chapman and M. T. Dixon. They will play Kreisler's "Nina" and a gypsy dance by Bohm. The 2YA Salon Orchestra, under Mr. M. T. Dixon, will play Edward German's "Nell Gwynn Dances," Wormser's suite, "Enfant Prodigue," and Olsen's "Petite Rhapsody Russe."

MISS FLORA CORMACK will give another of her interesting lectures on Thursday afternoon, her subject on this occasion being the "Latest Styles in Shoes for 1930." Hare Hongi at 7.40 p.m. will deliver another of his series of interesting lecturettes on "Maori Pronunciation."

ON Thursday evening the welcome to be extended to Lord and Lady Bledisloe will be broadcast on relay from the Town Hall.

ANOTHER of the series of talks on "The Stock Exchange — the World's Financial Barometer" will be given on Friday evening, at 7.40

p.m., by a member of the Wellington Stock Exchange. The evening session will consist of a programme of operatic and comic opera numbers. The 2YA Orchestrina, under Signor A. P. Truda, will play the overture to "Fra Diavolo," a selection from Strauss's comic opera "My Son John"; the musical comedy selection, "The Rain-bow"; an "Entr'acte" by Helemesberg, a selection, "Midnight," by Aviles, and a concert waltz by Escamillo—"Valse Espagnole."

The vocal portion of the programme will include solos from "La Reine de Saba," "La Gioconda," "Faust," "Mignon," "Robin Hood," "I Pagliacci" and "The Bohemian Girl," the soloists being Mrs. W. Fraser Morrish, Miss Gladys Hibberd, Mr. Oliver Foote and Mr. L. Bent, Mr. Victor S. Lloyd, who needs no introduction to his listeners, will relate another of his experiences. An interesting feature of the programme will be a piano duet arrangement of the famous overture "Zampa," which will be played by the at 7.40, and should interest a number Misses Molly Cook and Molly Withers.

ON Saturday evening Mr. F. Bird will give a talk on the "Care of the Feet." The talk is to commence at 7.40 and should interest a number of listeners. Mr. Bird is a lecturer who can speak with authority. The Melodie Four, Miss Dorothy Sawyer and Mr. Ransom Myers will be the contributing vocalists and entertainers for the evening's concert. The instrumental portion of the programme will be provided by the 2YA Salon Orchestra and Messrs. Berthold and Bent. The orchestral items will be the overture "Virginia"; "Fletcher's "Nautical Scenes," and a musical comedy selection, "Sybil." The orchestra will also play some of the latest dance novel-ties.

Features from 3YA

THE service in Holy Trinity Church of England, Avonside, will be broadcast on Sunday evening by 3YA. Canon Coursey will be the preacher. A studio programme will follow. The local artists will be Mrs. Una J. Harris (soprano), Mrs. N. Bingham Puddey (mezzo-contralto), Mr. W. Bradshaw (tenor), Mr. A. Gladstone Brown (baritone) and Miss Florence Brewins (elocutioniste). An excellent programme has been arranged.

AN Irish concert will be presented on Monday evening in honour of St. Patrick's Day. The entertainment will be typically Hibernian. The selections to be played by the Christchurch Municipal Band will include such tunes as the march "Irish Guards," "Gems of Irish Melodies," and "Paddy's Patrol." Two cornet solos will be "Londonderry Air" and "Killarney." A similar budget of Irish airs will be played by the Christchurch Broadcasting Trio. On the vocal side listeners will hear Miss Anita Graham, Miss Alma Finnerty, Mr. Leslie Stewart and Mr. W. J. Richards. The songs to be sung will com-

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prise numerous old favourites whose popularity never wanes, and some songs which, while well known, especially to the older generations, are not heard so frequently. Among the latter is "The Little Red Lark," to be sung by Miss Graham. Other solos to be sung will be "The Minstrel Boy," "Mother Machree," "Macushla," "The Mountains of Mourne," "That Old Irish Mother of Mine," and "Little Town in Ould County Down." A number of modern popular songs of an Irish character will be heard.

WEDNESDAY evening's programme will attain a high musical standard. Miss Corrie Aslin will sing the waltz song from "Coppelia," a song rarely sung. Her other items will be "Mignonette" and "Un peu d'amour." Miss Dulcie Mitchell will sing "Ave Maria," composed by Mr. R. A. Horne, of Christchurch. This is a particularly fine piece of music and the radio presentation will be the first time it has been publicly sung. Miss Mitchell will also sing "Thank God for a Garden." Mr. H. Blakeley (tenor) will sing the rarely-heard "Aurora" (waltz song) and "When Shadows Gather." The songs chosen by Mr. J. Graham Young are "Lend Me Your Aid" (from "Irene") and "A Bedouin Love Song." There will be two vocal duets: "Home to our Mountains" (from "Il Trovatore") and "Love Me To-night" (from "The Vagabond King"). Recitations will be given by Mrs. Margaret Williams. On the instrumental side a choice programme will be presented by the Studio Octet under Mr. Harold Beck, among the numbers being three of MacDowell's delightful "Woodland Sketches."

THE talk to farmers will this evening be given by Mr. A. M. Paterson, veterinarian of the Department of Agriculture. He will speak on "The Control of Internal Parasites in Sheep."

3YA will rebroadcast 2YA's relay of the welcome to Lord and Lady Bledisloe on Thursday evening.

ON Friday evening "The Arcadians" will be presented, excerpts from this very popular musical play being interspersed by humorous numbers from Mr. Frank Moran and dance music from the Bailey-Marston Dance Orchestra. The singers for the evening will be Miss Frances Hamerton, Miss Belle Renaut, Mr. Russell Sumner and Mr. T. D. Williams.

SATURDAY evening's programme will provide a very bright entertainment. Solos from "Hit the Deck," "The Student Prince" and "The Vagabond King" will be sung by Miss K. Hart-Stewart. Popular songs by Mrs. M. Sierokowski will be "I'd Climb the Highest Mountain," "Girl of My Dreams," and "What's Become of Sally?" Mr. E. A. Dowell will also sing popular numbers. There will be songs and patter by the Happiness Boys, who will make their first radio appearance

as a duo. Humorous sketches will be given by Mr. Sydney Comfort, and on the instrumental side of the musical programme the contributors will be Mr. Harold Beck and the Studio Trio.

Features from 4YA

ON Sunday evening the service in Hanover Street Baptist Church will be broadcast. The Rev. E. H. Tuckwell will be the preacher. A relay of 3YA's after-church concert will follow.

MONDAY evening's programme will be a special Irish concert in honour of St. Patrick's Day.

ON Tuesday evening the Salvation Army Band, under Mr. A. W. Millard, will provide a programme. The items to be played will be "Red Shield," "In Emanuel's Praise," "Adeste Fideles," "Beethoven and Spohr," "Musical Switch," "Warrior's Reward," "Beauty of Christ," and the march "Beaumont." The supporting vocalists will be Mrs. D. Carty, Miss Helen Roy and Mr. Noel H. North, while elocutionary items will be given by Miss Ngata Buswell.

THE subject for the discussion with ladies on Wednesday afternoon will be "Fixed Versus Movable Equipment." At 7.15 Dr. A. Fisher, Professor of Economics, Otago University, will speak on "The Marketing Conditions on the Farm." Both talks are under the auspices of the 4YA Primary Productions Committee.

WEDNESDAY evening's programme will consist of a relay from the new Town Hall, where a first-class concert is to be given under the auspices of the Children's Day Nursery Committee. An excellent programme has been arranged. Miss Mae Matheson (soprano), Miss Freda Elmes (soprano), Mrs. A. Ritchie (contralto), Mr. J. E. Davies (tenor), Mr. Fred Kershaw (bass), Mr. Bert Rawlinson (Scottish songs), Miss Anita Winkel (elocutioniste), Mr. F. H. Lampen (humorous talks), Mr. W. Smith (tenor horn champion), Mr. J. B. McConnell (yokel comedy), Dr. Price (organist), Miss Ethel Wallace (violiniste) and Miss Vivienne Lamb and Mr. Cockburn (dancers), with Mrs. E. Drake as accompanist.

INSTEAD of observing "silent night" on Thursday, 4YA will be on the air to rebroadcast from 2YA the welcome to Lord and Lady Bledisloe.

ON Friday evening the popular duo of radio players, Miss Anita Winkel and Major Lampen, will be welcomed on their reappearance before the microphone. They will present two sketches, "The New Portia" and "The Indicator." A fine instrumental

programme will be presented by the Studio Quintet, the items comprising Nevin's suite, "In Arcady," Weber's "Invitation a la Valse," a selection from "The Pink Lady," Taylor's "Petite Suite de Concert," the "Wee McGregor Patrol," "When You Come Home," and Peel's suite, "Vases Piquantes." The soloists for the evening will be Miss Molly Vickers and Mr. Wm. Ruffell. Clarinet and cello solos will be played by Mr. S. George and Mr. Frank Drake respectively.

ON Saturday evening 3YA's programme will be relayed.

Children's Sessions

At 2YA.

MONDAY, MARCH 17: Uncle Jeff is coming to-night with fresh Riddles and Puzzles. There will be a real Doll's House and we are going to play "Houses."

TUESDAY: Uncle Jim to-night. Cousin Evelyn has prepared a programme all by herself for you. She is bringing musical monologues and violin solos.

THURSDAY: Now comes Uncle George and Jumbo, who will tell stories of Maori lore. Cousin Joyce will play on the vibraphone and other cousins are singing and reciting.

FRIDAY: Robinson and Big Brother Jack and the Clucking Hen will be in the studio to-night. Cousin Marjorie will dance a clog dance and Athol will play two violin solos. The Story Book Lady will also be here.

SATURDAY: Uncle Toby and his Mouth Organ, with Cousins Babs and Marjorie in his aeroplane. The Sunshine Trio are coming again and three little girls will recite.

SUNDAY: Mr. Thomas is bringing the Children's Choir from the Church of Christ and the service will be conducted by Uncle George.

A Radio Story

Berlin on a Crystal

AN amusing story from Denmark is told of a radio dealer in a Danish town, who woke up one morning to find he had on his hands a number of unsaleable crystal-detector sets. On his consulting a friend who happened to be an enthusiastic radio amateur and the proud possessor of a short-wave transmitter, the friend begged permission to remake one of the sets, and shortly afterwards demonstrated to the astonished dealer that he was able, apparently, to hear Berlin on the set.

The dealer, unable to resist the temptation, passed on the good news to the proprietor of a general store, who also found to his satisfaction that Berlin came through quite well; and in a very short time the sets—remodelled in the meanwhile—had changed hands. The general storeman then wished to give a demonstration in his stores of his newly-acquired "crystal-detector sets "with guaranteed reception of foreign stations," and, learning

Sectional Aerial Towers

A New Development

INSTEAD of being one unit of steel supported on large insulators, the 200-foot aerial towers of radio station WHK, at Cleveland, have been broken up into five sections, each about forty feet long, with big porcelain insulators between the sections. This method, which gives more uniform and reliable reception, was developed by a well known American radio engineer.

The ideal aerial is one that is suspended in the air in order to radiate energy in a circle, and the sectional tower is the nearest practical approach to this ideal. In one-piece towers it is often necessary to tune the tower to the frequency of the station because such masses of metal behave like one plate of a large condenser, the other terminal being the ground, and so have a natural period of oscillation. With the sectional towers, the frequency of the individual sections is so high that they do not interfere with station frequency.

Ladders and hoisting system for raising or lowering the aerial also are provided with gaps and insulated sections. Electric lights cannot be used because the wires interfere with insulation, and, instead, the top of the tower is lighted with acetylene, the gas being carried in copper tubing with porcelain insulation at each tower section.

this, the dealer rang up his friend the amateur and asked him to oblige again with the necessary "Berlin programme" from his transmitter.

When, however, the radio amateur, announcing as before in his best German: "Achtung! Achtung! Meine Damen und Herren wir senden Schallplattenkonzert," etc., was just about to put on the first gramophone record, a shrill feminine voice was heard exclaiming in Danish: "Karl, komer du til Frokosten eller ikke!" (Charles, are you coming to breakfast or not?).

The words of Karl's landlady put an abrupt end to the transmission from "Berlin," and the customers, possibly thinking the demonstration was a queer sort of joke gradually faded away. It is said that the case even reached the law courts, where it caused so much amusement that the two offenders (the general storeman having acted in good faith) got off lightly.

SORE THROAT?

Pulmonas
INVALUABLE PASTILLES
for
QUICK RELIEF



Burgess Batteries
are used in all
big events.

Why?

**BURGESS
RADIO
BATTERIES**

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

Why?

Full Programmes for Next

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Sunday, March 16

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

- 3.0 : Afternoon session—Selected studio items and literary selection by the Announcer.
 4.30 : Close down.
 6.0 : Children's Song Service, conducted by Uncle Leo.
 6.55 : Relay of evening service from Church of Christ, West Street. Preacher: Pastor William Campbell.
 8.30 : (approx.) : Relay of concert by Municipal Band, under the conductorship of Mr. Christopher Smith, from the Town Hall.
 9.45 : God Save the King.

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

- 3.0 to 4.30 : Afternoon session.
 6.0 : Children's Song Service, conducted by Uncle George, assisted by the Cambridge Terrace Congregational Sunday School Choir under Mr. Reynolds.
 7.0 : Relay of Evening Service of St. Andrew's Presbyterian Church. Preacher, Rev. R. J. Howie, B.A. Organist and Choirmaster, Mr. Frank Thomas.
 8.15 : (approx.) Studio concert by the Wellington Artillery Band (Conductor, Captain T. Herd), assisted by 2YA artists.
 March—Wellington Artillery Band, "Athelais" (Plater).
 Overture—"The Golden Sceptre" (Greenwood).
 Mezzo-contralto—Mrs. P. J. Townley, "Nearer, My God, to Thee" (Carey).
 Selection—Philadelphia Symphony Orchestra, "Soldiers Changing the Guard" from "Carmen" (Bizet) (H.M.V. D1618).
 Baritone—Mr. S. Evelyn Rodger, "The Last Watch" (Pinsuti).
 Horn trio with band—Bandsmen Cundy, Taylor, Jacobs and Wellington Artillery Band, "Gloaming" (Evans).
 Tenor—Mr. H. Stapp, "Fiocca le Neve" (Cimara).
 Sextet—Galli-Curci, Homer, Gigli, de Luca, Pinza and Bada, "Chi Mi Frena" from "Lucia di Lammermoor" (Donizetti) (H.M.V.).
 Selection—Wellington Artillery Band, "Opera Bouquet No. 1" (Biddgood).
 Weather report and announcements.
 Mezzo-contralto—Mrs. P. J. Townley, (a) "All Soul's Day" (Lassen); (b) "Resolution" (Lassen).
 Orchestral—Berlin State Opera Orchestra, "German Dances" (Mozart—arrgd. Steinbach) (H.M.V. D1624).
 Baritone—Mr. S. Evelyn Rodger, (a) "To-morrow" (Keel); (b) "The Fortune Hunter" (Willeby).
 Intermezzo—Wellington Artillery Band, "White Lilies" (Hume).
 Quartet with orchestra—Galli-Curci, Homer, Gigli and de Luca, "Bella Figlia Dell' Amore" from "Rigoletto" (Verdi) (H.M.V. DQ102).
 Tenor—Mr. L. Stapp, (a) "My Heart is a Haven" (Steinel); (b) "Ma Little Banjo" (Dichmont).
 Cornet duet with band accompaniment—Sergeant Bowman, Bandsman Houchen and Wellington Artillery Band, "One Loving Caress" (Wenrich).
 Concert selection—Wellington Artillery Band, "Heimliche Liebe" (Resch).
 God Save the King.

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

- 3.0 : Afternoon session gramophone recital.
 4.30 : Close down.
 5.30 : Children's Song Service by children of Church of England Sunday Schools.
 6.15 : Gramophone Recital—Selected items.
 7.0 : Relay of evening service from Holy Trinity Church of England, Avon-side. Preacher, Canon Coursey. Organist and Musical Director, Mr. Arthur Lilley, A.R.C.O.
 8.15 (approx.) : Orchestral—Philadelphia Symphony Orchestra, "Nocturne No. 2 Fetes" (Debussy) (H.M.V. E507).
 8.23 : Mezzo-contralto—Mrs. N. Bingham Puddey, (a) "When Thou Art Far" (Ronald); (b) "By the Waters of Minnetonka" (Lieurance).
 8.29 : Tenor—Mr. W. Bradshaw, (a) "The Scent of the Lilies" (Young); (b) "In Moonlight" (Elgar).
 8.35 : Cello—Gaspar Cassado, "Melodie Arabe" (Glazounov).
 8.38 : Recitation—Miss Florence Brewins, "King John and the Abbot of Canterbury" (from "Reliques") (Bishop Percy).
 8.43 : Soprano—Mrs. W. B. Harris, "The Willow" (Goring Thomas).
 8.46 : Piano—Paderewski, "Valse Brillante in E Flat Major" (Chopin).
 8.50 : Baritone—Mr. A. Gladstone Brown, (a) "Almond Blossoms" (Claude Arundale); (b) "Tears That Children Shed" (from "Moon Magic" cycle) (Claude Arundale).

- 8.55 : Cello—Gaspar Cassado, "Le Cygne" (Saint-Saens).
 8.58 : Mezzo-contralto—Mrs. N. Bingham Puddey, "A Summer Night" (Goring Thomas).
 9.2 : Weather report and announcements.
 9.4 : Tenor—Mr. W. Bradshaw, "Once Again" (Sullivan).
 9.8 : Recitation—Miss Florence Brewins, "At Sunset" (Bracken).
 9.12 : Piano—Paderewski, "Valse Caprice" (Rubinstein).
 9.14 : Soprano—Mrs. W. B. Harris, (a) "Thou Art Like a Lovely Flower" (Schumann); (b) "Lullaby" (Keel).
 9.23 : Baritone—Mr. A. Gladstone Brown, "The Wanderer" (Schubert).
 9.27 : Flute and Orchestra, Jean, Nada and Zurich Tonhalle Orchestra, "Andante for Flute and Orchestra" (Mozart).
 God Save the King.

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

- 3.0 : Chimes.
 3.1 : Selected Gramophone Items.
 4.30 : Close down.
 5.30 : Children's Song Service, conducted by Big Brother Bill.
 6.15 : Close down.
 6.30 : Relay of Evening Service from Hanover Street Baptist Church: Preacher: Rev. E. H. Tuckwell. Choirmaster: Mr. Desmoulin. Organist: Mr. Upton Harvey.
 7.45 : Selection—Herman Finck and Orchestra, "Schubertiana" (Schubert). Solo and chorus—Tudor Davis and Chorus, "Walther's Prize Song" from "The Mastersingers of Nuremberg" (Wagner) (H.M.V. D758).
 Cello—W. H. Squire, (a) "Humoresque" (Dunkler and Squire); (b) "Largo" (Handel) (Columbia 04192).
 8.15 : Relay—3YA Christchurch.
 9.30 : God Save the King.

Monday, March 17

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

SILENT DAY.

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

- 3.0 : Chimes. Selected studio items.
 3.30 and 4.30 : Sports results.
 3.40 : Lecturette—Miss Agnes Stops, Organiser Women's Institutes of New Zealand, "Women's Institutes."
 4.55 : Close down.
 5.0 : Children's session.
 6.0 : Dinner Music Session, "Columbia" Hour.
 Overture—Basle Symphony Orchestra, "Der Freischutz" (Weber).
 6.12 : Tacet.
 6.15 : Instrumental—J. H. Squire's Celeste Octet, (a) "The Grasshoppers' Dance" (Bucalosi) (3608); (b) "The Butterfly" (Bendix).
 Musical Art Quartet—"To a Wild Rose" (McDowell) (01506).
 Violin—Yvonne Curti, "Madrigale" (Simonetti) (01529).
 6.27 : Tacet.
 6.30 : Instrumental—J. H. Squire's Celeste Octet (a) "I Love the Moon" (Rubens); (b) "Two Eyes of Grey" (McGeoch) (01213).
 Instrumental—J. H. Squire's Celeste Octet, (a) "Amoureuse Valse" (Berger); (b) "Valse Bleue" (Margis) (3643).
 6.42 : Tacet.
 6.45 : Instrumental—J. H. Squire's Celeste Octet, "Valse Caprice" (Rubinstein) (02581).
 Cello solo—W. H. Squire, "Sarabande" (Seilzer) (04283).
 Instrumental—J. H. Squire's Celeste Octet, "Perpetuum Mobile" (Weber, arrgd. Crocke) (02581).
 6.57 : Tacet.
 7.0 : News session, market reports and sports results.
 7.40 : Lecturette—Mr. H. C. South, "Books—Grave and Gay."
 8.0 : Chimes.
 Relay of the St. Patrick's Day Concert from the Town Hall.
 Overture—2YA Orchestra, under the conductorship of Signor A. P. Truda—"O'Donohue of the Lakes."
 Chorus—Choir of Marist Brothers School, Hawkestone Street, "The Tunes We Love to Hear on Paddy's Day."
 Song—Mr. Richard Maunder, "The Irish Emigrant."
 Dance—Pupils of Miss Phyllis McMillan, "Irish Jig."
 Song—Mrs. T. Treacy, "Hills of Donegal."
 Song—Mr. Wilbur Davies, "Brian of Glenaar."
 Recitation—Miss Grace Kerr, Selected.
 Song—Mr. R. J. G. Madigan, "Father O'Flynn."

Week-all Stations-to Mar. 23

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Song—Miss Kathleen Jansen, (a) "When Thro' Life Unblest We Rove";
(b) "I Know Where I'm Goin'."

Overture—2YA Orchestra, under the conductorship of Signor A. P. Truda, "O'Donohue of the Lakes."

Chorus—Choir of Marist Brothers School, Tasman Street, Selected.

Dance—Pupils of Miss Phyllis McMillan, "Irish Reel."

Song—Mr. L. Stapp, "Foggy Dew."

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

ST. PATRICK'S DAY.

3.0 : Afternoon session gramophone recital.

4.25 : Sports results.

4.30 : Close down.

5.0 : Children's Hour, "Scatterjoy."

6.0 : Dinner session, "H.M.V." Hour.

Overture—H.M. Coldstream Guards Band, "Poet and Peasant" (Suppe) (C1315).

Orchestral—Symphony Orchestra, "Love the Magician" (De Falla).

6.12 : Tacet.

6.15 : March—National Military Band "Liberty Bell" (Sousa).

Waltz—International Novelty Quartet, "Cuckoo" (Jonasson).

Waltz—Jack Hylton's Orchestra, "Spanish Rose" (Pearson).

Xylophone—Sam Herman, "Al Fresco" (Zono. EE53).

6.27 : Tacet.

6.30 : Orchestral—New Light Symphony Orchestra, "In a Clock Store" (Orth).

March—Royal Opera Orchestra, "Marche Hongroise" (Berlioz).

6.42 : Tacet.

6.45 : Schottische—International Novelty Quartet, "Lena" (Mewes).

Pipe organ, piano, trombone and harp, "Shilket's Rhythm Melodists, "When You're with Somebody Else" (Gilbert) (EA336).

Waltz—Jack Hylton's Orchestra, "The Angelus was Ringing" (Damarell) (B5451).

March—National Military Band, "El Capitan" (Sousa) (Zono. 5366).

6.57 : Tacet.

7.0 : News session.

8.0 : Chimes.

St. Patrick's Day Irish Programme, featuring Christchurch Municipal Band (Conductor, Mr. J. Noble), and assisted by 3YA Artists.

8.1 : March—Band, "Irish Guards" (Sontini).

8.7 : Popular song—Mr. Leslie Stewart, "That Old Irish Mother O' Mine" (Von Tilzer).

8.11 : Irish Reel—Hanagan Brothers' Novelty Orchestra, "McGonagle Taste" (Traditional) (Regal G20563).

8.15 : Mezzo-soprano—Miss Anita Graham, (a) "The Little Red Lark" (Graves) (Old Irish); (b) "Irish Folk Song" (Foote).

8.21 : Instrumental—Christchurch Broadcasting Trio, (a) "Off in the Stilly Night" (MS.); (b) "The Last Rose of Summer" (MS.); (c) "Irish Jig" (Holbrooke).

8.29 : Elocution—Clapham and Dwyer, "Golf" (Clapham and Dwyer).

8.37 : Bass—Mr. W. J. Richards, "Macushla" (Macmurrrough).

8.43 : Cornet—Bandsman H. Barsby and band accompaniment, Old Irish, "Londonderry Air" (arrgd. Hawkins).

8.49 : Irish songs—Miss Alma Finnerty, (a) "You Brought Ireland to Me" (Ball); (b) "A Little Bit of Heaven" (Ball).

8.51 : Selection—Band, "Gems of Irish Melodies" including—1, Eileen Allannah; 2, The Lass of Donegal; 3, Asthore; 4, The Cruicksheen Lawn; 5, Sweet Innisfallen; 6, Green Isle of Erin; 7, Jig Paddy Snap (Ord Hume).

9.1 : Weather report and announcements.

9.3 : Novelty—Hanagan Brothers' Novelty Orchestra, (a) "Turkey in the Straw" (Traditional); (b) "Arkansas Traveller" (Regal 20563).

9.6 : Popular songs—Mr. Leslie Stewart, (a) "The Mountains of Mourne" (Collisoon); (b) "Little Town in the Ould County Down" (Monte Carlo).

9.12 : Instrumental—Christchurch Broadcasting Trio, (a) "The Meeting of the Waters" (MS.); (b) "Andante Scherzo" (Mathias).

9.20 : Mezzo-soprano—Miss Anita Graham, "The Minstrel Boy" (Traditional) (arrgd. Rimbault).

9.24 : Cornet solo and band accompaniment—Bandsman E. Watson, "Killarney" (Balfe).

9.30 : 'Cello—Clyde Twelvetees, "Has Sorrow Thy Young Days Shaded" (Traditional) (Col. 01447).

9.34 : Fantasia—Band, "Knight Errant" (Trussell).

9.46 : Bass—Mr. W. J. Richards, (a) "Mother Machree" (Alcott and Ball); (b) "The Little Irish Girl" (Lohr).

9.52 : Popular song—Miss Alma Finnerty "When They ask what your Name Is" (Castling and Godfrey).

9.56 : March—Band, "Paddy's Patrol" (Daere).
God Save the King.

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

3.0 : Chimes. Selected gramophone items.

4.25 : Sporting results.

4.30 : Close down.

5.0 : Children's Hour, conducted by Uncle Allan.

6.0 : Dinner Session, "Columbia" Hour.

Orchestra—Orchestre, Symphonique de Paris, "L'Arlesienne Suite" (Bizet) 1. Prelude; 2. Entr'acte-Pastorale, L'Etag de Vaccares; 3. Choeurs-Suivant la Pastorale (Columbia 01324/25).

6.12 : Tacet.

6.15 : Selection—Columbia Symphony Orchestra, "Faust" (Gounod) (02708).
Violin—Toscha Seidel, "Chanson Arabe" (Rimsky-Korsakov) (09505).

6.27 : Tacet.

6.30 : Orchestral—Orchestre Symphonique de Paris, "L'Arlesienne"; 1. La Cuisine de Castelet; 2. Minuetto; 3. Le Carillon; 4. Adagietto (Bizet) 01326/27).

6.42 : Tacet.

6.45 : Orchestral—Orchestre Symphonique de Paris, "Farandole" (L'Arlesienne) (Bizet) (Columbia 01328).

Band—Band Garde Republicaine de France, "Carmen" entr'acte (Bizet) (02747).

6.56 : Tacet.

7.0 : News session.

8.0 : Chimes.
Special St. Patrick's night programme.

10.30 : God Save the King.

Tuesday, March 18

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

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

4.30 : Close down.

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

6.0 : Dinner Session, "H.M.V." Hour:

Orchestral—Marek Weber and His Orchestra, "Beggar Student" (Milklocker) (C1528).

Orchestral—Philadelphia Symphony Orchestra, "Carmen Entracte Act 4" (Bizet) (E531).

Piano—Wilhelm Bachaus, "Bohemian Dance" (Smetana) (DB1130).

6.13 : Tacet.

Band—Creatore's Band, "Semiramide" (Rossini) (C1420).

Orchestral—Philadelphia Symphony Orchestra, "Soldiers Changing the Guard" (Bizet) (D1618).

Orchestral—Marek Weber and Orchestra, "Rustle of Spring" (Sinding)

6.28 : Tacet.

6.30 : Orchestral—New Symphony Orchestra, "Neil Gwynn Dances Nos. 1 and 2" (Edward German) (B2987).

Orchestral—Philadelphia Symphony Orchestra, "Carmen March of the Smugglers" (Bizet) (D1618).

Piano—Wilhelm Backhaus, "Caprice Espagnole" (Moszkowski).

6.44 : Tacet.

6.45 : Orchestral—Marek Weber and Orchestra, "My Darling Waltz" (Waldteufel) (C1630).

Band—National Military Band, "Flying Dutchman Overture" (Wagner) (A364).

Orchestral—Philadelphia Symphony Orchestra, "Carmen." "Entr'acte Act 1" (Bizet) (D1618).

6.58 : Tacet.

7.0 : News and market reports.

7.15 : Talk—Mr. George Campbell, "Motoring."

7.40 : Talk—Mr. F. E. MacKenzie, president of Auckland Acclimatisation Society, "Native Bird Life."

8.0 : Chimes. Excerpts from Talkie pictures from the Majestic Theatre will be introduced into this programme.

Overture—1YA Orchestral Octet, under the conductorship of Mr. Eric Waters, "Faust" (Gounod).

8.9 : Soprano—Mrs. Freda Evans, "Love Me Now!" from "Madame Pompadour" (Fall).

8.13 : 'Cello—W. H. Squire, "Tales of Hoffman" (Offenbach).

8.16 : Baritone—Mr. H. Barry Coney (a) "Il Balen" from "Il Trovatore" (Verdi); (b) "The Heart Bowed Down," from "The Bohemian Girl" (Wallace).

8.24 : Instrumental—1YA Orchestral Octet, "Bridal Chorus and Wedding Procession" (Wagner).

8.30 : Contralto—Miss Doris Moore, (a) "Love the Vagrant" from "Carmen" (Bizet); (b) "Romance" from "Faust" (Gounod).

8.37 : Talk—Mr. A. B. Chappell, M.A., "Topical Talk."

- 8.52: Operatic selection—New Queen's Hall Light Orchestra, "Pagliacci" (Leoncavallo) (Columbia 02714).
 9.1: Weather forecast and announcements.
 9.8: Instrumental—1YA Orchestral Octet, "Four Dances" from the "Rebel Maid" (Phillips) 1. Jig; 2. Gavotte; 3. Graceful Dance; 4. Villagers' Dance.
 9.18: Soprano—Mrs. Freda Evans, (a) "Star of Fate" (Tchaikowsky) from "Catherine"; (b) "Dreamland Lover" from "Betty in Mayfair" (Fraser-Simpson).
 9.20: Pianoforte—Mr. Cyril Towsey, (a) "Improptu in A Flat" (Chopin); (b) "Improptu in C Sharp Minor" (Chopin).
 9.30: Baritone—Mr. H. Barry Coney, "Vision Fugitive" from "Herodiade" (Massenet).
 9.35: Selection—1YA Orchestral Octet, "To-night's the Night" (Rubens).
 9.45: Contralto—Miss Doris Moore, "Lascia Ch'io Pianga" from "Rinaldo" (Handel).
 9.49: 'Cello—W. H. Squire, "Berceuse de Jocelyn" (Godard).
 9.53: Selection—1YA Orchestral Octet, "Gaiety Girl Waltz" (Lavernash).
 10.0: God Save the King.

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

- 3.0: Chimes, selected studio items.
 3.30 and 4.30: Sports results.
 4.55: Close down.
 5.0: Children's Session.
 6.0: Dinner Music Session, "H.M.V." Hour.
 Orchestral—New Light Symphony Orchestra, "Minuet" (Boccherini).
 Orchestral—Nat Shilkret and The Salon Group, "Stephen Foster Melodies," "My Old Kentucky Home" (Foster) (EB42).
 Band—H.M. Coldstream Guards, "Wee MacGregor's Patrol" (Amers).
 Orchestral—Salon Orchestra, "Pagan Love Song" (Freed-Brown).
 6.18: Tacet.
 6.15: Orchestral—De Groot and Orchestra, "Waldteufel Memories" (arrgd. Herman Finck) (B3084).
 Band—H.M. Coldstream Guards, "Policeman's Holiday" (Ewing).
 Organ—Jesse Crawford, "I Get the Blues When it Rains" (Klauber-Stoddard) (EA631).
 6.29: Tacet.
 6.30: Band—H.M. Coldstream Guards, "Belle of New York" (Kerker).
 'Cello—Beatrice Harrison, "Viennese Melody" (Kreisler) (C1647).
 Orchestral—Nat Shilkret and The Salon Group, "Stephen Foster Melodies" (Old Black Joe) (EB42) (Foster).
 6.43: Tacet.
 6.45: Orchestral—New Symphony Orchestra, "Nell Gwynn Dances No. 3" (German) (B036).
 Organ—Jesse Crawford, "I'll Always Be in Love With You" (Ruby-Green-Stept) (EA631).
 Band—H.M. Coldstream Guards, "Geisha Selection" (Jones).
 Orchestral—Salon Orchestra, "Wedding of the Painted Doll" (Freed-Brown) (EA633).
 6.58: Tacet.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Representative Agricultural Department, "For the Man on the Land."
 8.0: Chimes.
 Overture—2YA Salon Orchestra (Conductor, Mr. Mat Dixon) "Nell Gwynn Dances" (German).
 8.9: Soprano—Miss Phyllis Martin, (a) "My Life is Love"; (b) "Love Will Find a Way" (Both numbers from "Maid of the Mountains") (Fraser-Simson).
 8.16: Baritone—Mr. Claude Moss, (a) "Sir Roger" (Collman); (b) "Route Marching" (Stock).
 8.23: Instrumental Trios—Messrs. W. Haydock, S. Chapman and M. Dixon, (a) "Nina" (Kreisler); (b) "Gipsy Dance" (Bohm).
 8.33: Entertainers—Miss Maisie Oakes and Mr. Doug. Stark, vocal "Knitting" (Alcotte-Bruce), duet, "Not That Sort of Person" (Monckton), humour, "Sob Stuff" (Jordan).
 8.48: Soprano—Miss Phyllis Martin, "My Hero" from "The Chocolate Soldier" (Strauss).
 8.49: Baritone—Mr. Claude Moss, "A Japanese Love Song" (Brahe).
 8.53: Instrumental—2YA Salon Orchestra, "request item."
 9.1: Weather report and announcements.
 9.3: Suite—2YA Salon Orchestra, "Enfant Prodique" (Wormster).
 9.11: Entertainers—Miss Maisie Oakes and Mr. Doug. Stark, humour, "Under the Bazunka Tree" (Weston), duo, "That's You Baby" (Conrad); vocal, "What Wouldn't I Do for That Man" (Gorney).
 9.23: Instrumental—2YA Salon Orchestra, "Petite Rhapsody Russe" (Olsen).
 9.31: Dance programme, "H.M.V."
 Foxtrot—Vallee's Connecticut Yankees, "Heigh Ho! Everybody, Heigh Ho!" (Woods) (EA614).
 Foxtrot—Shilkret's Orchestra, "Hittin' the Ceiling" (Gottler).
 Foxtrot—Weem's Orchestra, "Good Morning, Good Evening, Good Night" (Lewis) (EA615).
 Foxtrot—Shilkret's Orchestra, "Sing a Little Love Song" (Gottler).
 9.42: Vocal duet—Dora Maughan and Walter Fehl, "That's Just What I Thought" (Bennett-Carlton) (B3000).
 Foxtrot—Vallee's Connecticut Yankees, "S'Posin'" (Razaf) (EA582).
 Foxtrot—Arnheim's Orchestra, "Lovable and Sweet" (Clare) (EA608).
 Olsen's Orchestra, "Out Where the Moonbeams are Born" (Davis).
 9.57: Piano duet—Arden Ohman, "Ragamuffin" (Greer) (RE166).
 Foxtrot—Shilkret's Orchestra, "Junior" (Donaldson) (EA590).

- Foxtrot—Waring's Pennsylvanians, "When My Dreams Come True" (Berlin) (EA592).
 Foxtrot—Reisman's Orchestra, "Gay Love" (Clarke) (EA625).
 Foxtrot—Waring's Pennsylvanians, "My Sin" (De Sylva) (EA592).
 10.12: Humour—Leonard Henry, "What Did the Village Blacksmith Say?" (Henry) (B3013).
 Foxtrot—Shilkret's Orchestra, "Used to You" (De Sylva) (EA587).
 Foxtrot—All Star Orchestra, "My Dream Memory" (Clare) (EA608).
 Foxtrot—Shilkret's Orchestra, "Why Can't You?" (De Sylva).
 Foxtrot—The Troubadours, "My Song of the Nile" (Bryan) (EA625).
 Waltz—The Troubadours, "My Heart is Bluer Than Your Eyes" (Bryan) (EA612).
 10.30: Piano duet—Victor Arden, Phil Ohman, "Dance of the Paper Dolls" (Tucker) (EE166).
 Foxtrot—Vallee's Connecticut Yankees, "Miss You" (Tobias) (EA614).
 Foxtrot—Reisman's Orchestra, "Ain't Misbehavin'" (Razaf).
 Foxtrot—Vallee's Connecticut Yankees, "The One in the World" (Little) (EA582).
 10.42: Foxtrot—George Olsen and His Music, "Reaching for Someone" (Leslie) (EA599).
 Vocal duet—Dora Maughan and Walter Fehl, "Eggs, Toast and Coffee" (Merill) (B3000).
 Foxtrot—Hylton's Orchestra, "You're the Cream in My Coffee" (De Sylva) (B5650).
 Foxtrot—Vallee's Connecticut Yankees, "Every Moon's a Honeymoon" (Wimbrow) (EA581).
 Foxtrot—Hylton's Orchestra, "To Know You is to Love You" (De Sylva) (B5650).
 Waltz—Reisman's Orchestra, "Evangeline" (Rose) (EA615).
 11.0: God Save the King.

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

SILENT DAY.

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

- 3.0: Chimes. Selected gramophone items.
 4.25: Sporting results.
 4.30: Close down.
 5.0: Children's Hour, conducted by Uncle George.
 6.0: Dinner Session, "H.M.V." Hour.
 Instrumental—Royal Opera Orchestra, "Praeludium" (Jarnefeldt).
 'Cello—Pablo Casals, "Melody in F" (Rubinstein) (DA833).
 Waltz—Royal Opera Orchestra, "Eugin Onegin" (Tchaikowsky).
 Balalaika Orchestra, "Shining Moon" (Russian folk song) (EA48).
 6.12: Tacet.
 6.15: Suite—Paul Whiteman's Orchestra, "Suite of Serenades" (Herbert).
 1. Spanish; 2. Chinese; 3. Cuban; 4. Oriental (EB26).
 Waltz—Philadelphia Symphony Orchestra, "Tales from the Vienna Woods" (Strauss) (ED2).
 6.27: Tacet.
 6.30: Instrumental—Royal Opera Orchestra, "Berceuse" (Jarnefeldt).
 'Cello—Pablo Casals, "Traumerei" (Schumann) (DA833).
 Male Quartet—The Rounders, "Chlo-E" (Kahn) (EA402).
 Instrumental—San Francisco Symphony Orchestra, (a) "Serenade" (Volkman); (b) "Flight of the Bumble Bee" (Rimsky-Korsakov).
 6.42: Tacet.
 6.45: Instrumental—Chicago Symphony Orchestra, (a) "Valse Triste" (Sibelius); (b) "Funeral March of a Marionette" (Gounod) (ED5).
 March—San Francisco Symphony Orchestra, "Marche Militaire" (Schubert) (ED9).
 6.57: Tacet.
 7.0: News session.
 7.15: Talk—Mr. R. W. Marshall (Tourist Department) "Tourist Resorts."
 8.0: Chimes.
 Programme of music to be rendered by Salvation Army Band, Dunedin, under conductorship of Mr. A. W. Millard.
 March—The Band, "Red Shield" (Goffin).
 Selection—The Band, "In Emanuel's Praise" (Ball).
 8.18: Soprano—Mrs. D. Carty, "We'd Better Bide a Wee" (Moffat).
 8.21: Light Orchestra—Plaza Theatre Orchestra, "My Lady Dainty" (Heese).
 8.25: Recitals—Miss Ngata Buswell, (a) "One Side Please" (Anon.); (b) "Foolish Questions" (Anon.).
 8.31: Meditations—The Band, "Adeste Fideles" (trdtl.).
 8.41: Baritone—Mr. Noel H. North, (a) "Sea Gipsy" (Willeby); (b) "Serenata" (Tostelli).
 8.48: Hymn tunes—The Band, "Beethoven and Spohr" (arrgd. Hawkes).
 8.53: Mezzo-Contralto—Miss Helen Roy, (a) "The Hawk" (Clarke); (b) "In My Garden" (Liddle).
 9.0: Weather report.
 9.3: Selection—The Band, "Musical Switch" (Millard).
 9.15: Soprano—Mrs. D. Carty, (a) "Homeland" (Drummond); (b) "The Mountains of Mourne" (Collison).
 9.21: Piccolo—Gennin Brothers, "Fluttering Birds" (Gennin).
 9.27: Recital—Miss Ngata Buswell, "The Highwayman" (Noyes).
 9.31: Selection—Band, "Warriors' Reward" (Ball).
 9.38: Baritone—Mr. Noel H. North, "On Wings of Song" (Mendelssohn).
 9.41: Light Opera—Plaza Theatre Orchestra, "The Busy Bee" (Bendix).
 9.45: Selection—The Band, "Beauty of Christ" (Kitching).
 9.52: Mezzo-contralto—Miss Helen Roy, "Fair Spring is Returning" (Saint-Saens).

- 9.56: March—The Band, "Beaumont" (Dickens).
 10.0 : God Save the King.

Wednesday, March 19

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

- 3.0 : Afternoon session—Selected studio items, including literary selection by the Announcer.
 4.30: Close down.
 5.0 : Children's session, conducted by Uncle Tom.
 6.0 : Dinner session—"Columbia" Hour.
 Band—Royal Italian Band, "Marcia Reale" (Gabetti) (Col. 01182).
 Instrumental—Court Symphony Orchestra, "In Venice" (Sellars) (896).
 Kinema organ—Stanley MacDonald, "Was it a Dream?" (Coslow).
 Band—Royal Italian Band, "Garibaldi's Hymn" (Olivieri) (01182).
 6.12: Tacet.
 6.15: Instrumental—Ketelbey's Concert Orchestra, "Sanctuary of the Heart" (Ketelbey) (Columbia 02690).
 'Cello—W. H. Squire, "Melody in F" (Popper) (Columbia 04178).
 6.26: Tacet.
 6.30: Instrumental—W. H. Squire's Celeste Octet, "Mignon": (1) Introduction and Romance; (2) Polonaise (Thomas) (02749).
 'Cello—W. H. Squire, "Silver Threads Among the Gold" (Danks—arrgd. Squire) (04178).
 6.42: Tacet.
 6.45: Band—H.M. Grenadier Guards, "Turkish Patrol" (Michaelis) (4111).
 Kinema organ—Stanley MacDonald, "Nicolette" (Batten) (Regal).
 Waltz—Jacque Jacobus Ensemble, "Vienna Life" (Strauss) (02556).
 Idyll—H.M. Grenadier Guards Band, "Smithy in the Woods" (Michaelis) (Columbia 4111).
 6.58: Tacet.
 7.0 : News and market reports.
 7.40: Talk—Madame Mabel Milne, "Health and Diet."
 8.0 : Chimes.
 Saxophone quartet—Bert Kingsland's Saxophone Quartet, "Walking the Dog" (Brook and Farigley).
 8.5 : Soprano—Mrs. J. le Pettit, (a) "Maori Slumber Song" (Te Rangi Pai); (b) "Little Bit of a Man" (Thompson).
 8.12: Piano and vocal—Mr. and Mrs. Scott, (a) piano, "Etude Butterfly" (Chopin); (c) novelty interlude, "Upright and Grand" (own arrangement); (d) vocal, "While the Incense is Burning" (Smith); (e) vocal, "At Dawning" (Cadman).
 8.27: Humorous recitation—Mr. Zante Wood, "Jack and Jill" (Spurr).
 8.37: Saxophone quartet—Bert Kingsland's Saxophone Quartet, "Ghost of the Saxophone" (Klickmann).
 8.41: Contralto—Mrs. B. Jellard, (a) "Whatever is, is Best" (Lohr); (b) "Smiling Through" (Penn).
 8.48: Humorous duet—Little Woods Duo, "Do You Like Me" (Darnley).
 8.54: Saxophone quartet—Bert Kingsland's Quartet, "Moaning Saxophone Ray" (Brown and Cooke).
 8.58: Evening forecast and announcements.
 9.0 : Pianoforte and vocal—Mr. and Mrs. Scott, (a) piano, "Autumne" (Chaminade); (b) vocal, "The Floral Dance" (Moss); (c) piano, "Fantasie Impromptu" (Chopin); (d) vocal and piano, "Medley of Latest Hits."
 9.15: Humorous recital—Mr. Zante Wood, "Lord Lundy" (Belloc).
 9.20: Saxophone quartet—Bert Kingsland's Saxophone Quartet, "Bennet's Triumphal March" (Ribble).
 9.24: Contralto—Mrs. B. Jellard, "Awake!" (Pellissier).
 9.28: Humorous sketch—Little Woods Duo, "Accounts" (Edmond).
 9.35: Gramophone lecture-recital—Mr. Karl Atkinson, "Echoes of St. Patrick's Day."
 10.5 : God Save the King.

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

SILENT DAY.

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

- 3.0 : Afternoon session gramophone recital.
 4.25: Sports results.
 4.30: Close down.
 5.0 : Children's session, conducted by Uncle John.
 6.0 : Dinner Session, "Columbia" Hour.
 Selection—B.B.C. Wireless Symphony Orchestra, "La Boutique Fantasque" (Respighi, arrgd. Carr) (Regal G30018).
 'Cello—W. H. Squire, "Humoresque" (Dunkler-Squire) (04192).
 6.12: Tacet.
 6.15: J. H. Squire's Celeste Octet, "Chant Sans Paroles" (Tschalkowsky).
 Suite—Plaza Theatre Orchestra, "Gipsy Suite" 1. Valse; Lonely Life; 2. Allegro, The Dance (German) (02537).
 6.27: Tacet.
 6.30: Suite—Plaza Theatre Orchestra, "Gipsy Suite" 1 Menuetto, Love duet; 2. Tarantella, "The Rebel" (German) (02538).
 Madrid Symphony Orchestra, "Dance of the Neighbours" (De Falla).
 6.42: Tacet.
 6.45: Venetian Players String Quintet, (a) "Romanza" (Mozart). (Regal G20467); (b) "Allegro" (Mozart).

- Pianoforte—Ignaz Friedman, "Romance in E Flat" (Rubinstein).
 Basle Symphony Orchestra, "Rosamunde, Entr'acte No. 2" (Schubert).
 6.57: Tacet.
 7.0 : News session.
 7.30: Addington stock market reports.
 8.0 : Chimes.
 Operatic and miscellaneous programme.
 8.1 : Instrumental—Studio Instrumental Octet, (Conductor Mr. Harold Beck) (a) "Triumphal March" (Verdi); (b) "Nocturne in E Flat" (Chopin).
 8.9 : Soprano—Miss Corrie Aslin, (a) "Coppelia" waltz (Delibes); (b) "Mignonette" (Harris).
 8.13: Baritone—Mr. J. Graham Young, "Lend Me Your Aid" (Gounod).
 8.17: Sonata for violin and piano—Isolde Menges, Harold Samuel, "Sonata in A Major 1st Movement" (Brahms) (H.M.V. B3098).
 8.23: Contralto and Tenor Duet—Salono Duo, "Home to Our Mountains" (Il Trovatore) (Verdi).
 8.26: Instrumental—Studio Instrumental Octet, "Ballet Music from Le Cid" (Massenet) 1. Castillene; 2. Andalouse; 3. Aragonaise; 4. Aubade; 5. Catalane.
 8.38: Tenor—Mr. H. Blakeley, "Aurora" waltz song (Olivier).
 8.42: Humorous recitation—Mrs. Margaret Williams, "How Paddy Stole the Rope" (Anon).
 8.47: Selection—H.M. Grenadier Guards Band, "Martha" (Flotow).
 8.55: Quartet Vocal—Salon Quartet—"Lovely Night" (Chevatal arrgd. Stone).
 Contralto—Miss Dulcie Mitchell, "Ave Maria" 1st performance in New Zealand, with violin obligato by Miss Irene Morris (R. A. Horne).
 9.1 : Weather report and announcements.
 9.3 : Overture—H.M. Grenadier Guards Band, "Der Freischutz" (Weber).
 9.7 : Soprano—Miss Corrie Aslin, "Un Peu D'Amour" (Silesu).
 9.11: Instrumental—Studio Instrumental Octet, (a) "Pas Des Amphores" (Chaminade); (b) "Mazurka" (Saint Saens).
 9.18: Baritone—Mr. J. Graham Young, "Bedouin Love Song" (Pinsuti).
 9.22: Sonata for violin and piano—Isolde Menges, Harold Samuel, "Sonata in a Major 3rd Movement" (Brahms) (H.M.V. B3100).
 9.25: Duet, soprano and baritone—Salon Duo, "Love Me To-night" ("The Vagabond King") (Friml).
 9.27: Humorous Recitation—Mrs. Margaret Williams, "Breaking His Contract" (Roberts).
 9.32: Instrumental—Studio Instrumental Octet, (a) "Jig" (Gustav Holst); (b) "Ostinato" (Golst Holst).
 9.40: Contralto—Miss Dulcie Mitchell, "Thank God for a Garden" (Del Riego).
 9.43: Orchestral—San Francisco Orchestra, "Marche Militaire" (Schubert).
 9.47: Tenor—Mr. H. Blakeley, "When Shadows Gather" (Marshall).
 9.50 : Vocal Quartet—Salon Quartet, "Moonlight on the Lake" (C. A. White).
 9.52: Instrumental—Studio Instrumental Octet, "Woodland Sketches" (Macdowell), (a) "To Uncle Remus"; (b) "A Deserted Farm"; (c) "Told at Sunset".
 God Save the King.

4YA, DUNEDIN (650 KILOCYCLES)—WEDNESDAY, MARCH 19

- 3.0 : Chimes. Selected gramophone items.
 3.15: Talk—Home Science Department of Otago University, under auspices of 4YA Primary Productions Committee, "Fixed Versus Movable Equipment."
 4.25: Sporting results.
 4.30: Close down.
 5.0 : Children's hour, conducted by Big Brother Bill.
 6.0 : Dinner music—"Brunswick" Hour.
 Orchestral—Brunswick Concert Orchestra, "Dance of the Hours" (Ponchielli) (4515).
 Orchestral—A. and P. Gypsies, "Herbertiana" (Stone) (4287).
 Violin—Frederick Fradkin, "Le Cygne" (Saint Saens) (4528).
 Orchestral—Brunswick Concert Orchestra, "Badinage" (Herbert).
 Orchestral—A. and P. Gypsies, "The Far Away Bells" (Furber-Gordon).
 6.14: Tacet.
 6.15: Orchestral—Brunswick Concert Orchestra, "Wine, Women and Song" (Strauss) (20088).
 Orchestral—Anglo-Persians, "Cossack Love Song" (Katzman) (4483).
 Violin—Frederick Fradkin, "Nola" (Arndt) (4318).
 Orchestral—Ray Miller and His Orchestra, "Iowa Corn Song" (Lockard) (4579).
 6.28: Tacet.
 6.30: Orchestral—A. and P. Gypsies, (a) "White Acacia"; (b) "Petite Causerie" (Stone) (4287).
 Orchestral—Brunswick Concert Orchestra, "Thousand and One Nights" (Strauss) (20088).
 Orchestral—A. and P. Gypsies, "Simple Confession" (Thome) (4442).
 Orchestral—Ray Miller and His Orchestra, "Go You North-Western" (Van Etten) (4579).
 6.43: Tacet.
 6.45: Orchestral—Brunswick Concert Orchestra, "La Danseuse" (Von Blon).
 Orchestral—Brunswick Concert Orchestra, "Hungarian Lutspliel" (Keler) (4515).
 Violin—Frederick Fradkin, "A Kiss in the Dark" (de Sylva) (4318).
 Orchestral—Anglo-Persians, "Ragamuffin" (Greer) (4483).
 6.58: Tacet.
 7.0 : News session.

- 7.15: Talk—Dr. A. Fisher, Professor in Economics, Otago University, under the auspices of 4YA Primary Productions Committee, "The Marketing Conditions of the Farm."
- 8.0: Chimes.
Relay of grand popular concert from Dunedin Town Hall, under the auspices of the Ladies' Committee of the Day Nursery.
1. Soprano—Miss Mae Matheson.
 2. Elocutionist—Miss Anita Winkel, L.T.C.L.
 3. Violinist—Miss Ethel Wallace, L.A.B.
 4. Soprano—Miss Freda Elmes.
 5. Humorous talks—Mr. F. H. Lampen.
 6. Dancers—Miss Vivienne Lamb and Mr. Cockburn.
 7. Contralto—Mrs. A. Ritchie.
 8. Tenor horn champion—Mr. W. Smith.
 9. Yodel comedy—Mr. J. B. McConnell.
 10. Bass—Mr. Fred Kershaw.
 11. Organist—Dr. Price.
 12. Tenor—Mr. J. E. Davies.
 13. Scotch songs—Mr. Bert Rawlinson.
- Accompanist—Mrs. E. Drake.
- 9.30: Foxtrot—Cotton Pickers, "He's a Good Man to Have Around" (Yellen).
Foxtrot—Ray Miller's Orchestra, "Someone's Falling in Love" (Little).
Foxtrot—Cotton Pickers, "Shoo, Shoo, Boogie Boo" (Robin) (4447).
Foxtrot—Ray Miller's Orchestra, "You Want Lovin'" (Spier) (4425).
- 9.42: Vocal duet—The Inspiration Boys, "On the Alamo" (Kahn) (4436).
Foxtrot—Gerunovich's Roof Garden Orchestra, "There's Sugar Cane Around My Door" (Leonard) (4430).
Foxtrot—Mount Royal Hotel Orchestra, "Finding the Long Way Home" (Kahn) (4406).
Waltz—Regent Club Orchestra, "Mistakes" (Leslie) (4473).
Waltz—Carter's Orchestra, "Three O'Clock in the Morning" (Terris).
- 9.57: Organ and xylophone—Lew White, "You Were Meant for Me" (Freed).
Foxtrot—Mount Royal Hotel Orchestra, "The Land of Sleepy Water" (Higman) (4406).
Foxtrot—Biltmore Hotel Orchestra, "That's What I Call Sweet Music" (Meskill) (4413).
Foxtrot—Red Nicholls' Five Pennies, "Alice Blue Gown" (Tierney).
Foxtrot—Biltmore Hotel Orchestra, "Now I'm in Love" (Yellen).
- 10.12: Comedian—June Pursell and Roy Fox, "I'm Walking Around in a Dream" (Lewis) (4412).
Foxtrot—Arnold Johnson's Orchestra, "Don't Hang Your Dreams on a Rainbow" (Kahal) (4452).
Foxtrot—Al Goodman's Orchestra, "Or What Have You?" (Henry).
Foxtrot—Colonial Club Orchestra, "Song of the Moonbeams" (Tobias).
Foxtrot—Al Goodman's Orchestra, "I've Made a Habit out of You" (Dietz) (4383).
Waltz—Regent Club Orchestra, "If We Never Should Meet Again" (Leslie) (4473).
- 10.30: Organ and xylophone—Lew White, "Wedding of the Painted Doll" (Freed) (4416).
Foxtrot—Oriole Orchestra, "An Old Italian Love Song" (Harrison).
Foxtrot—Lyman's California Orchestra, "Ain't Misbehavin'" (Razaf).
Foxtrot—Oriole Orchestra, "Why Did You?" (Lombardo) (4439).
Foxtrot—Red Nicholls' Five Pennies, "A Pretty Girl is Like a Melody" (Berlin) (4456).
- 10.45: Vocal duet—The Inspiration Boys, "The Moonlight March" (Newman).
Foxtrot—Hotel Astor Orchestra, "Every Moon's a Honeymoon" (Wimbrow) (4410).
Foxtrot—Lyman's California Orchestra, "Bashful Baby" (Friend).
Hotel Astor Orchestra, "An Eye-full of You" (Gilbert) (4410).
Waltz—Carter's Orchestra, "That Naughty Waltz" (Stanley) (4433).
- 11.0: God Save the King.

Instrumental—Royal Opera Orchestra, "The Sleeping Beauty" (Tschalkowski) (C1469).

- 6.58: Tacet.
- 7.0: News and market reports.
- 7.40: Lecturette—Dr. I. L. G. Sutherland, Director W.E.A., "Education on the Air."
- 8.0: Chimes.
Presentation of special novelty programme by the "Radio Scamps," assisted by the 1YA Orchestral Octet, entitled "Reminiscences." The following programme is subject to alteration contingent on the relay from Wellington of the welcome to be accorded to Lord and Lady Bledisloe.
- 9.30: Programme of dance music—"Brunswick."
Foxtrot—Colonial Club Orchestra, "Florella" (Bryan) (4312).
Foxtrot—Swanee Syncopators, "The One That I Love Loves Me" (Turk) (4329).
Waltz, with whistling—Eight Radio Stars, "Always in My Heart" (Drew) (4312).
- 9.42: Vocal duet—Lester McFarland and Robert Gardner, "Birmingham Jail" (Traditional) (293).
Foxtrot tango—Colonial Club Orchestra, "Mi Amado" (Lewis) (4241).
Foxtrot—Eight Radio Stars, "Under the Stars of Havanna" (Coleman) (4311).
Foxtrot—Swanee Syncopators, "Honest" (Tucker) (4329).
Foxtrot—Eight Radio Stars, "A Happy Ending" (Brown) (4311).
- 9.57: Vocal novelty—Al Bernard, "The Preacher and the Bear" (Arzonja).
Foxtrot—The Captivators, "Building a Nest for Mary" (Rose) (4321).
Foxtrot—Los Angeles Biltmore Hotel Orchestra, "I'm Walking Around in a Dream" (Lewis) (4337).
Waltz—Copley Plaza Orchestra, "Pagan Love Song" (Freed) (4321).
- 10.9: Orchestra and chorus—Blue Ridge Ramblers, (a) "Who Broke the Lock on the Hen-house Door?" (Smith); (b) "She'll Be Comin' 'Round the Mountain when She Comes" (Traditional) (310).
Foxtrot—Los Angeles Biltmore Hotel Orchestra, "Until You Get Somebody Else" (Kohn) (4337).
Foxtrot—Arnold Johnson and His Orchestra, "Breakaway" (Gottler).
- 10.21: Vocal duet—Lester McFarland and Robert Gardner, "Go and Leave Me If You Want To" (Traditional) (293).
Foxtrot—Arnold Johnson's Orchestra, "Big City Blues" (Gottler).
Foxtrot—The Clevelanders, "What a Girl, What a Night" (Sanders).
Waltz—Regent Club Orchestra, "Just an Old Love Affair" (Kahn).
- 10.33: Male quartet—Ritz Quartet, "Come West, Little Girl, Come West" (Kahn) (4328).
Foxtrot—Ben Bernie and His Hotel Roosevelt Orchestra, "Baby, Oh Where Can You Be?" (Koehler) (4438).
Foxtrot—Ray Miller's Orchestra, "That's a Plenty" (4224).
Foxtrot—Ben Bernie and His Hotel Roosevelt Orchestra, "Out Where the Moonbeams are Born" (Davis) (4438).
- 10.48: Male quartet—Ritz Quartet, "I'm Bringing a Red, Red Rose" (Kahn).
Foxtrot—The Six Jumping Jacks, "Olaf" (Bibbs) (4219).
Foxtrot—Ray Miller's Orchestra, "Angry" (Brunies) (4224).
Foxtrot—Rhythm Aces, "Ace of Rhythms" (Smith) (7071).
- 11.0: God Save the King.

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

- 3.0: Chimes. Selected studio items.
- 3.30 and 4.30: Sports results.
- 3.40: Lecturette—Miss Flora Cormack, "Latest Styles in Shoes for 1930."
- 3.50: Selected studio items.
- 4.55: Close down.
- 5.0: Children's session.
- 6.0: Dinner Music Session, "Parlophone" Hour:
Waltz—Dajos Bela Orchestra, (a) "Sulamith" (Hansen-Milde); (b) "Mignonette" (Nicholls) (Parlophone E10571).
Instrumental—Dajos Bela Orchestra, "Eldgaffeln" (Landen).
- 6.12: Tacet.
- 6.15: Instrumental—Frank Westfield's Orchestra, "Classica" (arrgd. Tilsley).
Organ—Sigmund Krungold, "Indian Love Call" (Friml) (A2339).
Waltz—Dajos Bela Orchestra, "You, Only You" (Arnold) (E10592).
- 6.27: Tacet.
- 6.30: Selection—Rale Da Costa Ensemble, "Funny Face" (Gershwin).
Waltz—Dajos Bela Orchestra, "The Sphinx" (Popy) (E10592).
- 6.42: Tacet.
- 6.45: Instrumental Orchestra Mascotte, (a) "The Flowers' Dream" (Trans-lateur); (b) "Whispering of the Flowers" (Von Blon) (A2559).
Organ—Sigmund Krungold, "Gypsy Love Song" (Herbert) (A2339).
Instrumental—Dajos Bela Orchestra, "Electric Girl" (Helmbergh-Holmes) (A4009).
- 6.58: Tacet.
- 7.0: News session, market reports and sports results.
- 7.40: Lecturette—Hare Hongi "Maori Pronunciation."
- 8.0: Chimes. Relay from Town Hall of reception to Lord and Lady Bledisloe.

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

- 3.0: Afternoon session—Gramophone recital.
- 4.25: Sports results.
- 4.30: Close down.
- 5.0: Children's hour, "Uncle Frank."
- 6.0: Dinner session—"Columbia" Hour.

Thursday, March 20

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

- 8.0: Afternoon session—Concert by Lewis Eady Limited and literary selection by the Announcer.
- 4.30: Close down.
- 5.0: Children's session, conducted by Peter Pan.
- 6.0: Dinner session—"H.M.V." Hour.
Overture—National Symphony Orchestra, "Light Cavalry" (Suppe).
Waltz—Chicago Symphony Orchestra, "Roses of the South" (Strauss).
'Cello—Pablo Casals, "Moment Musical" (Schubert) (DA776).
- 6.13: Tacet.
- 6.15: Hawaiian—Hilo Hawaiian Orchestra, (a) "Kawaihau Waltz" (Kela-kai); (b) "My Hula Love" (B2799).
Medley waltz—The Troubadours, "Popular Songs of Yesterday."
'Cello—Pablo Casals, "Le Cygne" (Saint-Saens) (DA776).
- 6.27: Tacet.
- 6.30: Waltzes—International Concert Orchestra, (a) "The Merry Widow" (Lehar); (b) "Luxembourg Waltz" (Lehar) (Zonophone EF9).
Violin and guitar—Guilietta Morino, (a) "Harlequin's Serenade" (Drigo); (b) "Could I" (Poggis) (Zonophone EE184).
- 6.44: Tacet.
- 6.45: Instrumental—New Light Symphony Orchestra, (a) "The Dancing Doll" (Poldini); (b) "At Dawning" (Cadman) (B2629).
Wurlitzer organ—Jesse Crawford, "Carolina Moon" (Davis) (EA436).

Orchestral—Halle Orchestra, "Capriccio Espagnole" (Rimsky-Korsakov) (02912/3).

6.18: Tacet.

6.15: Orchestral—Menorah Symphony Orchestra, "Bar Kochba Selection" (Goldfaden) (02922).

Piano—Ignaz Friedman, "Minuetto from Suite" (J. Suk) (04346).

Orchestral—New York Symphony Orchestra, "Entrance of the Little Fauns" (Pierne) (02907).

6.28: Tacet.

6.30: Band—B.B.C. Wireless Military Band, "Gathering Peascods—Folk Dance" (arrgd. Cecil J. Sharp) (01711).

Violin—Yelly D'Aranyi, "Souvenir" (Drdla) (03644).

Orchestral—Orchestra de la Societe des Concerts du Conservatoire Paris, "Le Rouet D'Omphale" (Saint-Saens) (02926).

6.42: Tacet.

6.45: Band—B.B.C. Wireless Military Band, "Epping Forest—Folk Dance" (arrgd. Cecil J. Sharp) (01711).

Piano—Ignaz Friedman, "Berceuse" (Chopin) (04346).

Orchestral—Berlin State Orchestra, "Wiener Blut" (Strauss) (04337).

6.58: Tacet.

7.0: News session.

7.30: Talk—Mr. A. M. Patterson, Veterinary Department of Agriculture, "The Control of Internal Parasites in Sheep" (arranged by 3YA Primary Productions Committee).

8.0: Chimes. Rebroadcast of 2YA, reception to Lord and Lady Bledisloe.

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

Rebroadcast from 2YA of reception to Lord and Lady Bledisloe.

Friday, March 21

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

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

4.30: Close down.

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

6.0: Dinner Session, "Columbia" Hour:

Orchestral—Squire Celeste Octet, "Peter Pan Selection" (Crook).

Cello—Gaspar Cassado, "Chanson Villageoise" (Popper) (03595).

Orchestral—Columbia Symphony Orchestra, "Scarf Dance" (Chaminade) (01371).

6.13: Tacet.

6.15: Orchestral—Debroy Somers' Band, "The Desert Song" (Romberg).

Cello—Gaspar Cassado, "Menuett" (Haydn, arrgd. Burmester-Moffat).

Male Choir—Sheffield Orpheus Male Choir, "Hymn Before Action" (Kipling-Walford Davies) (Regal G30008).

6.28: Tacet.

6.30: Orchestral—Halle Orchestra, "Rosamunde Ballet Music" (Schubert).

1. Andantino; 2. Allegro Moderato; 3. Andante un poco assai.

Instrumental—Paul Whiteman and His Orchestra, "Christmas Melodies" (Noel and Adeste Fideles) (Columbia 07511).

6.43: Tacet.

6.45: Orchestral—Columbia Symphony Orchestra, "The Flatterer" (Chaminade) (01371).

Zurich Tonhalle Orchestra, "Gavotte" from "Idomeneo" (Mozart).

Paul Whiteman and His Orchestra, "Silent Night, Holy Night."

Male Choir—Sheffield Orpheus Male Choir, "The Long Day Closes" (Chorley) (Regal G30008).

6.58: Tacet.

7.0: News and market reports.

8.0: Chimes.

Relay from Lewis Eady Hall of latest instrumental and vocal music.

8.30: Orchestral—Philadelphia Symphony Orchestra, "March of the Smugglers" from "Carmen" (Bizet) (H.M.V. D1618).

8.34: Vocal Quartet—N.Z. Four, "Believe Me" (Old Irish).

8.38: Instrumental—Studio Trio, "Melody in D" (Faure).

8.43: Tenor—Mr. Roy Dormer, "The Rose and the Musk" (Jalowicz).

8.47: Elocution—Miss Maisie Carte-Lloyd, "A Parental Ode to My Son" (Hood).

8.52: Cello—Miss Molly Wright, "Cantilena" (Gottermann).

8.57: Vocal duet—Mr. Jas. Simpson and Mr. Duncan Black, "Turn Ye to Me" (Moffatt).

9.1: Evening forecast and announcements.

9.3: Vocal quartet—N.Z. Four, "The Little Coon" (Geibel).

9.7: Instrumental Trio—Studio Trio, "Slavonic Dance No. 18" (Dvorak).

9.11: Bass—Mr. Duncan Black, "Spanish Gold" from "The Sea Hawk" (Fisher).

9.15: Orchestral—Philadelphia Symphony Orchestra, "Soldiers Changing Guard" from "Carmen" (Bizet) (H.M.V. D1618).

9.19: Vocal duet—Mr. Royal Dormer and Mr. Eric Mannall, "A Dream" (Bartlett).

9.23: Elocution—Miss Maisie Carte-Lloyd, (a) "He Worried About It" (Per-twee); (b) "The Gossip" (Wilcox).

9.31: Cello—Miss Molly Wright, "Piece en Forme D'Habanera" (Ravel).

9.36: Tenor—Mr. Jas. Simpson, "Sigh No More, Ladies" (Stevens).

9.40: Orchestral—Berlin State Opera Orchestra, "Polonaise No. 2" (Liszt, arrgd. Muller-Berghaus) (H.M.V. D1625).

9.48: Baritone—Mr. Eric Mannall, "A Song of Thanksgiving" (Allitsen).

9.52: Instrumental Trio—Studio Trio, "Four Bavarian Waltzes" (Frank).

9.57: Vocal quartet—N.Z. Four, "Lovely Night" (Chwatal).

10.1: Orchestral—Mayfair Orchestra, "Waiata Maori" (Hill).

10.5: God Save the King.

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

3.0: Chimes. Selected studio items.

3.30 and 4.30: Sports results.

4.55: Close down.

5.0: Children's session.

6.0: Dinner Music Session, "H.M.V." Hour:

Orchestral—New Light Symphony Orchestra, "Merry Wives of Windsor" (Nicolai) (C-260).

Waltz—Marek Weber's Orchestra, "Moonlight on the Alster" (Petras).

6.12: Tacet.

6.15: Intermezzo—New Light Symphony Orchestra, "Hearts and Flowers" (Tobani) (Zonophone EF20).

Waltz—Marek Weber's Orchestra, "Wine, Women and Song" (Weber).
Wurlitzer organ solo—Reginald Foort, "By the Blue Hawaiian Waters" (Keteleby) (C1459).

6.26: Tacet.

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

Orchestral—Victor Salon Orchestra, "Indian Love Call" (Rose Marie) (Friml) (EA186).

Orchestral—Victor Salon Orchestra, "The World is Waiting for the Sunrise" (Lockhart) (EA186).

Orchestral—De Groot and His Orchestra, "When Summer is Gone" (Harrison) (H.M.V. B3035).

6.43: Tacet.

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..... 17-1

- 6.45: Orchestral—De Groots Orchestra, "The Merry Widow" (Lehar).
Wurlitzer organ solos—Reginald Foort, (a) "Leave Me Alone"; (b) "Songs My Mother Taught Me" (Dvorak) (C1459).
- 6.57: Tacet.
- 7.0: News session, market reports and sports results.
- 7.40: Lecture—Members of the Wellington Stock Exchange, "The Stock Exchange, the World's Financial Barometer."
- 8.0: Chimes.
Overture—2YA Orchestra (Conductor Signor A. P. Truda) "Fra Diavolo" (Auber).
- 8.9: Soprano—Mrs. W. Fraser Morrish, "Far Greater in His Lowly State" from "La Reine de Saba" (Gounod).
- 8.13: Duet for two pianos—Misses Molly Cook and Molly Withers, "Overture-Zampa" (Herold).
- 8.21: Baritone—Mr. L. Bent, "Fisherman, Thy Bait Now Lower" from "La Gioconda" (Ponchielli).
- 8.25: Vocal—Miriam Licette, Madame Clara Serena, Francis Russell, Harold Williams and chorus, vocal gems from "Faust" (Gounod).
- 8.33: Musical comedy selection—2YA Orchestra, "My Son John" (Strauss).
- 8.41: Contralto—Miss Gladys Hibberd, (a) "When All Was Young" from (Faust) (Gounod); (b) "Knowest Thou the Land" from "Mignon" (Thomas).
- 8.48: Tenor—Mr. Oliver Foote, (a) "O Promise Me" from "Robin Hood" (De Koyan); (b) "Doreen" (Allon).
- 8.55: Musical Comedy Selection—2YA Orchestra, "The Rainbow" (Gershwin).
- 9.3: Weather report and announcements.
- 9.5: Mr. Victor S. Lloyd will relate another experience.
- 9.17: Band of the Garde Republicaine "Carmen" "Entr'acte" (Bizet).
- 9.25: Soprano—Mrs. W. Fraser Morrish, "Ballantella" from "Pagliacci" (Leoncavallo).
- 9.29: Instrumental—2YA Orchestra (a) "Entr'acte" (Hellmesberg); (b) "Amedia Moche" (midnight) (Aviles).
- 9.39: Baritone—Mr. L. Bent, "Maria and Marie" (Roussio).
- 9.43: Flute solo with orchestra, Jean Nada and Zurich Tonhalle Orchestra, "Andante for Flute and Orchestra" (Mozart).
- 9.47: Contralto—Miss Gladys Hibberd, "A German Folk Song" (Eugen Hilbach).
- 9.51: Tenor—Mr. Oliver Foote, "When Other Lips and Other Hearts" from (Bohemian Girl) (Balfe).
- 9.55: Concert valse—2YA Orchestra, "Valse Espagnole" (Escamillo).
- 10.3: God Save the King.

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

- 3.0: Afternoon session gramophone recital.
- 4.25: Sports results.
- 4.30: Close down.
- 5.0: Children's Hour, conducted by Aunt Pat.
- 6.0: Dinner Session, "Columbia" Hour.
Instrumental—Ketelbey's Concert Orchestra, "In a Persian Market" (Ketelbey) (Columbia 02689).
Violin—Efrem Zimbalist, "Liebeslied—Old Vienna Waltz" (Kreisler).
- 6.12: Tacet.
- 6.15: Morceau—Plaza Theatre Orchestra, "The Busy Bee" (Bendix).
Dance—Plaza Theatre Orchestra, "My Lady Dainty" (Hesse).
Octet—J. H. Squire's Celeste Octet, "La Serenata" (Braga) (9116).
Kinema organ—G. T. Pattman, "Firefly" (Nicholls) (01348).
- 6.27: Tacet.
- 6.30: Orchestral—Paul Whiteman and His Orchestra, "Song of India" (Rimsky-Korsakov) (07510).
Waltz—New Concert Orchestra, "Hydropaten" (Gungl) (02672).
Violin—Efrem Zimbalist, "Zapateado" (Sarasate) (04221).
- 6.42: Tacet.
- 6.45: Waltz—New Concert Orchestra, "Jolly Fellows" (Bruder) (02672).
Octet—J. H. Squire's Celeste Octet, "Serenade" (trdtl.) (9116).
Orchestral—Paul Whiteman and His Orchestra, "Liebestraum" (Liszt, arrgd. Bargy) (07510).
- 6.56: Tacet.
- 7.0: News session.
- 8.0: Chimes.
Popular and Dance programme, featuring excerpts from the musical comedy "The Arcadians" by Moncton Talbot.
- 8.1: Overture—Royal Opera Orchestra, "Shepherd Fennel's Dance" (Balfour-Gardiner) (H.M.V. C1469).
- 8.5: Quartet—The Melodious Four, "Arcadians Are We" (Moncton).
Soprano—Miss Frances Hamerton, "The Pipes of Pan" (Arcadians) (Moncton).
- 8.11: Tenor and Chorus—Mr. Russell Sumner and Chorus, "Back Your Fancy" (Moncton).
- 8.15: Dance music, Bailey-Marston Dance Orchestra, (a) "Collegiate Sam" (Davis); (b) "Piccolo Pete" (Baxter).
- 8.23: Bass and Chorus—Mr. T. D. Williams and Chorus, "Fickle Fortune" (Arcadians) (Moncton).
- 8.27: Wurlitzer organ—Jesse Crawford, "La Paloma" (Yradier).
- 8.30: Quartet—Melodious Four, "The Joy of Life" (Arcadians) (Moncton).
- 8.34: Hawaiian Guitars, Hawaiian Quartet—"Medley Waltz" (Allan Hopkins) (H.M.V. EA24).
- 8.37: Humour in song and patter—Mr. Frank Moran, "The Pom Pom Tiddly on Parade" (Weston and Lee).
- 8.42: Carillon—W. E. Jordan, "Fantasia on Popular Airs."
- 8.48: Tenor—Mr. Russell Sumner, "I Like London" (Arcadians) (Moncton).

- 8.52: Dance Music—Bailey-Marston Dance Orchestra, (a) "Tiptoe Thru' the Tulips With Me" (Burke); (b) "Singing in the Rain" (Brown).
- 9.0: Weather report and announcements.
- 9.2: Overture—Royal Opera Orchestra, "Sleeping Beauty" (Tchaikowsky).
- 9.5: Contralto and Chorus—Miss Belle Renaut, "Bring Me a Rose" (Arcadians) (Moncton).
- 9.8: Wurlitzer organ—Jesse Crawford, "Estrallita" (Ponce).
- 9.11: Quartet—Melodious Four, "To All and Each" (Moncton).
Bass—Mr. T. D. Williams, "My Mother" (Arcadians) (Moncton).
- 9.17: Dance Music—Bailey-Marston Dance Orchestra, (a) "Your Mother and Mine" (Edwards); (b) "Painting the Clouds" (Burke).
- 9.25: Duet—Contralto and Tenor—Melodious Duo, "Half-Past Two" (Arcadians) (Moncton).
- 9.28: Mandolin Quartet—Athenian Mandolin Quartet, "Aloha Land" (Ferrer) (H.M.V. EA24).
- 9.31: Humour in song and patter—Mr. Frank Moran, "My Poor Old Mother's Shawl" (Rickaby).
- 9.38: Dance Music—Bailey-Marston Dance Orchestra, (a) "Ain't Misbehavin'" (Brooks); (b) "I've Got a Girl" (Heywood).
- 9.46: Soprano—Miss Frances Hamerton, "Light is My Heart" (Moncton).
- 9.50: Novelty Concert Party, "A Miniature Concert" (Medley).
- 9.56: Quartet—The Melodious Four, "All Down Piccadilly" (Arcadians) (Moncton).
- 9.59: Dance Music—Bailey-Marston Dance Orchestra, (a) "In a Japanese Garden" (Chenoweth); (b) "Marika" (Peters).
Dance music will be continued by the Bailey-Marston Dance Orchestra, until 11 p.m.
God Save the King.

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

- 3.0: Chimes. Selected gramophone items.
- 4.25: Sporting results.
- 4.30: Close down.
- 5.0: Children's hour, conducted by Aunt Shella.
- 6.0: Dinner music—"Columbia" Hour.
Suite—Ketelbey's Concert Orchestra, "In a Fairy Realm" (Ketelbey):
(1) The Moonlit Glade; (2) The Queen Fairy Dances; (3) Gnomes March (Columbia 02694/5).
- 6.12: Tacet.
- 6.15: Orchestral—Columbia Symphony Orchestra, "March of the Bojaren" (Halvorsen) (Columbia 02622).
Cello solo—Gaspar Cassado, "Melodie Arabe" (Glazounov).
Orchestral—New Queen's Hall Light Orchestra, "Wood Nymphs" (Contes) (Columbia 02591).
- 6.26: Tacet.
- 6.30: Orchestral—New Queen's Hall Light Orchestra, "Summer Days Suite" (Coates): (1) In a Country Lane; (2) On the Edge of the Lake; (3) At the Dance (Columbia 02590/1).
- 6.42: Tacet.
- 6.45: Orchestral—J. H. Squire's Celeste Octet, "Memories of Mendelssohn" (arrgd. Sear) (Columbia 02838).
Orchestral—Columbia Symphony Orchestra, "Bridal Procession" (Grieg) (Columbia 02622).
- 6.57: Tacet.
- 7.0: News session.
- 8.0: Chimes.
Suite—Instrumental Quintet, "In Arcady" (Niven): (1) A Shepherd's Tale; (2) Shepherds All and Maidens Fair; (3) Lullaby; (4) Tournament.
- 8.15: Soprano—Miss Molly Vickers, "All Through the Night" (Traditional).
- 8.19: Piano—Paderewski, "Valse Brillante in F Major" (Chopin).
- 8.23: Sketch—Winkel-Lampen Radio Players, "The New Portia" (Dion Titheradge).
- 8.29: Valse—Instrumental Quintet, "Invitation a la Valse" (Weber).
- 8.36: Baritone—Mr. William Ruffell, (a) "The Secret of the Tide" (Nevin); (b) "Mighty Like a Rose" (McGeoch).
- 8.42: Duet—Glynne and Robertson, "The Gendarme's Duet" (Offenbach).
- 8.52: Selection—Instrumental Quintet, "The Pink Lady" (Caryll).
- 9.0: Weather report.
- 9.2: Suite—Instrumental Quintet, "Petite Suite de Concert (C. Taylor):
(1) La Caprice de Nannette; (2) Demande et Response; (3) Un Sonnet D'Amour; (4) La Tarantelle Fretillante.
- 9.18: Soprano—Miss Molly Vickers, (a) "O, Man from the Fields" (Hughes); "Days of Joy are Here" (Hemery).
- 9.24: Sketch—Winkel-Lampen Radio Players, "The Indicator" (Titheradge).
- 9.30: Cello—Mr. Frank Drake, (a) "Absent" (Metcalfe); (b) "When Other Lips" (Balfe).
- 9.36: Male quartet—The Revellers, "Wake Up, Ohillun, Wake Up" (Traditional) (H.M.V. EA609).
- 9.40: Selection—Instrumental Quintet, (a) "Wee McGregor Patrol" (Amer); (b) "When You Come Home" (Squire-Wetherley).
- 9.47: Baritone—William Ruffell, "Drumadoon" (Sanderson).
- 9.50: Suite—Instrumental Quintet, "Valse Piquantes" (Peel): (1) Allegretto; (2) Presto; (3) Allegro con Spirito.
- 10.0: God Save the King.

Saturday, March 22

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

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

- 4.30: Close down.
 5.0: Children's session, conducted by Cinderella.
 6.0: Dinner session—"Parlophone" Hour.
 Fantasia—Edith Lorand Orchestra, "Johann Strauss" Fantasia (Strauss) (A4044).
 Piano and orchestra—Raie da Costa and Orchestra, "When Day is Done" (de Sylva) (A4041).
 6.12: Tacet.
 6.15: Hawaiian—David Kaili, "Honolulu March" (A2464).
 Kinema organ—Leslie Harvey, "Where the Shy Little Violets Grow" (Warren) (A2695).
 Waltz—Dajos Bela Orchestra, "The Grenadiers" (Waldteufel).
 Saxophone—Arnold Brillhart, "Fascination" (Bernie) (A2676).
 6.28: Tacet.
 6.30: Waltz—Dajos Bela Orchestra, "Polish Life" (Nedbal) (A4008).
 Piano and orchestra—Raie da Costa and Orchestra, "Sweetheart, I'm Dreaming of You" (Carter) (A4041).
 Instrumental—Dajos Bela Orchestra, "Dancing Demoiselle" (Fall).
 6.42: Tacet.
 6.45: Selection—Edith Lorand Orchestra, "Dollar Princess" (Fall) (E10512).
 Waltz—Dajos Bela Orchestra, "Casino Tanze" (Gungl) (A4081).
 6.57: Tacet.
 7.0: News and market reports.
 8.0: Chimes.
 8.1: Relay of concert from the Town Hall by the Auckland Municipal Band, under the conductorship of Mr. Christopher Smith.
 10.0: (approx.) Programme of dance music—"H.M.V."
 Foxtrot—Rhythmic Eight, "Don't Be Like That" (Gottler) (Zono.).
 Foxtrot—Jack Hylton's Orchestra, "Sweetheart of All My Dreams" (Fitch) (EA540).
 Foxtrot—Arcadians Dance Orchestra, "Pokee-okee-oh" (Butler).
 Foxtrot—Jack Hylton's Orchestra, "I Lift Up My Finger and Say Tweet Tweet" (Sarony) (EA540).
 10.12: Comedian—Eddie Cantor, "If I Give Up the Saxophone" (Fain-Kahal-Raskin) (EA576).
 Foxtrot—George Olsen's Music, "I'm Bringing a Red, Red Rose" (Kahn) (EA537).
 Foxtrot—Nat Shilkret's Orchestra, "One for All, All for One" (Trent).
 Foxtrot—Heidt's Orchestra, "I'm Ka-razy for You" (Jolson) (EA539).
 Waltz—Arcadian's Dance Orchestra, "Anita" (Pollack) (Zono. EE154).
 Waltz—Arcadians Dance Orchestra, "That Old-Time Organ Melody" (Carlton) (Zonophone EE155).
 10.30: Contralto—Lupe Velez, "Mi Amado" (Warren, Lewis, Young).
 Foxtrot—George Olsen's Music, "Come West, Little Girl, Come West" (Kahn) (EA537).
 Foxtrot—Nat Shilkret's Orchestra, "I'm Thirsty for Kisses, Hungry for Love" (Davis) (EA528).
 Foxtrot—Nat Shilkret's Orchestra, "Some Sweet Day" (Shilkret).
 Foxtrot—Waring's Pennsylvanians, "My Mother's Eyes" (Gilbert).
 10.45: Comedian—Eddie Cantor, "Hello, Sunshine, Hello" (Murray-Tobias).
 Foxtrot—"Kassels in the Air"; "He, She and Me" (Newman) (EA532).
 Foxtrot—Park Central Orchestra, "Sally of My Dreams" (Kernell).
 Waltz—Connecticut Yankees, "Coquette" (Berlin) (EA532).
 Waltz—Shilkret's Orchestra, "Lady Divine" (Shilkret) (EA531).
 11.0: God Save the King.

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

- 3.0: Chimes. Selected studio items.
 3.30 and 4.30: Sports results.
 4.55: Close down.
 5.0: Children's Session.
 6.0: Dinner Music Session, "Columbia" Hour.
 Orchestral—Finck's Orchestra, "Gaiety Echoes" (Caryll-Monckton).
 Orchestral—Sandler's Orchestra, "Las Lagarteranas" (Guerrero and Foulkes) (01634).
 Violin—Lipschultz "La Golondrina" (Sorraddell) (Regal G20489).
 6.13: Tacet.
 6.15: Instrumental—Squire's Celeste Octet, "Everybody's Melodies" (arrgd. J. H. Squire) (02896).
 Organ—John Hassell, "By the Waters of Minnetonka" (Lieurance).
 Orchestral—Sandler's Orchestra, "Raphaellito" (Guerrero and Foulkes) (01634).
 6.28: Tacet.
 6.30: Orchestral—Regal Kinema Orchestra, "Broadway Selection" (Gottler).
 Violin—Lipschultz, "Estrellita" (Ludlow) (Regal G20488).
 Orchestral—Romani and Italian Orchestra, "Old Comrades March" (Telke) (Regal G20488).
 6.43: Tacet.
 6.45: Orchestral—Berlin State Orchestra, "Die Fledermaus" (Strauss).
 Orchestral—Nullo Romani's Orchestra, "Canto al Inverno."
 Orchestral—Russian Novelty Orchestra, "Tesoro Mio" (Becucci).
 6.58: Tacet.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Mr. F. Bird, "Care of the Feet."
 8.0: Chimes.
 Overture—2YA Salon Orchestra, (Conductor Mr. Mat Dixon) "Virginia" (Haydn Wood).
 8.9: Quartet—Melodie Four, "Comrades in Arms" (Adam).
 8.13: Bass—Mr. W. W. Marshall, "Stonecracker John" (Coates).
 8.17: Steel Guitar Duo—Berthold and Bent, (a) "Honey" (Simons and Whiting); (b) "Kailima" (Alau).

- 8.24: Humour—Mr. E. Ransom Myers, "Sending the Wife Away" (original).
 8.31: Soprano—Miss Dorothy Sawyer (a) "Damon" (Strange); (b) "Let Miss Lindy Pass" (Winthrop Rogers).
 8.38: Instrumental—2YA Salon Orchestra, "The Three Bears" (Coates).
 8.46: Tenor—Mr. Frank Bryant, "Linden Lea" (Williams).
 8.50: Quartet—Melodie Four, request item, "Mulligan Musketeers" (Atkinson).
 8.54: Instrumental—2YA Salon Orchestra, "request item."
 9.2: Weather report and announcements.
 9.4: Baritone—Mr. R. S. Allwright, "The Village Blacksmith" (Werner).
 9.8: Instrumental—National Concert Band, (a) "Patrol Comique" (Handley-Lake); (b) "A Hunting Scene" (Bucalossi).
 9.14: Tenor—Mr. Sam Duncan, "She Wore a Wreath of Roses" (Knight).
 9.18: Musical Comedy Selection—2YA Salon Orchestra, "Sybil" (Jacobi).
 9.26: Humour—Mr. E. Ransom Myers, "How I Ran the House" (original).
 9.33: Mixed voices with orchestra, Light Opera Company, (a) "Vocal Gems from Whoopee" (Donaldson); (b) "Vocal Gems from Hold Everything" (De Sylva, Brown and Henderson) (H.M.V. EB41).
 9.41: Steel Guitar Duo—Berthold and Bent, (a) "When My Dream Come True" (Berlin); (b) "Among my Souvenirs" (Nicholls).
 9.48: Soprano—Miss Dorothy Sawyer, "The Low-Backed Car" (Lover).
 9.52: Quartet—Melodie Four, "Down at the Huskin' Bee" (Henry).
 9.56: Instrumental—2YA Salon Orchestra, "Dance Novelties."
 10.5: Dance programme, "Columbia" Hour.
 Foxtrot—Paul Whiteman and His Orchestra, "Lover Come Back to Me" (Romberg and Hammerstein) (07030).
 Foxtrot—Garber's Orchestra, "Outside" (Flynn) (01647).
 Foxtrot—Paul Whiteman and His Orchestra, "Marianne" (Romberg and Hammerstein) (07030).
 Foxtrot—Selvin's Orchestra, "In My Bouquet of Memories" (Akst-Lewis-Young) (01137).
 Foxtrot—Swain's Band, "Sleep Baby Sleep" (Tucker and Schuster).
 10.15: Duet—Layton and Johnstone, "Wake Up and Dream" (Porter).
 Foxtrot—Paul Specht and Orchestra, vocal trio, "Hittin' the Ceiling" (Gottler-Mitchell-Conrad) (01629).
 Foxtrot—Ipana Troubadours, "I'll Get By as Long as I Have You" (Turk-Ahlert) (01647).
 Paul Specht and Orchestra, "Sing a Little Love Song" (Gottler-Mitchell and Conrad) (01629).
 Waltz—The Cavaliers, "Sleepy Valley" (Hanley-Sterling) (01688).
 10.30: Vocal—Gladys Moncreiff, "Love is a Dreamer" (Green-Stept) (01780).
 Foxtrot—Bernie's Orchestra, "I Want to Meander in the Meadow" (Woods and Tobias) (01692).
 Foxtrot—Midnight Revellers, "The Moonlight March" (Newman-Lombardo) (G20522).
 Foxtrot—Bernie's Orchestra, "Where the Bab-Bab-Babbling Brook" (Nelson-Pease-O'Flynn) (01692).
 10.45: Foxtrot—Rhythmic Troubadours Vocal refrain, "Revolutionary Rhythm" (Davis, Coots, Spier) (G20600).
 Duet—Layton and Johnstone, "Wake Up and Dream" (Looking at You) (Porter) (01763).
 Foxtrot—Midnight Revellers, "Sweetheart's Holiday" (Robinson-Kahal) (G20522).
 Foxtrot—Rhythmic Troubadours and Vocal Refrain, "When the Real Thing Comes Your Way" (Spier and Coslow) (G20600).
 Waltz—The Cavaliers, "Recollections" (Rapee-Pollack) (01688).
 Waltz—Selvin's Orchestra, "Ramona" (Akst-Lewis-Young) (01137).
 11.0: Sporting Summary.
 11.10: God Save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SATURDAY, MARCH 22.

- 3.0: Afternoon session—Gramophone recital.
 4.25: Sports results.
 4.30: Close down.
 5.0: Children's hour.
 6.0: Dinner session—"H.M.V." Hour.
 Waltz—International Concert Orchestra, "Over the Waves" (Rosa).
 Orchestral—Paul Whiteman and His Orchestra, "High Water" (Brennan-McCarthy) (01607).
 Hawaiian—Hilo Hawaiian Orchestra, "My Hula Love" (Kealakai).
 Orchestral—Salon Orchestra, "Simple Aveu" (Thome) (5370).
 6.13: Tacet.
 6.15: Orchestral—Paul Whiteman and His Orchestra, "Mississippi Suite" (Grofe) (1574).
 Organ—Edward O'Henry, "Chant Sans Paroles" (Tschaiakowsky).
 Orchestral—Zonophone Salon Orchestra, "Narcissus" (Nevin).
 6.29: Tacet.
 6.30: Waltz—International Concert Orchestra, "Danube Waves" (Ivanovici) (Zonophone EF3).
 Hawaiian—Hilo Hawaiian Orchestra, "Kawaihau Waltz" (Kealakai).
 Orchestral—Paul Whiteman and His Concert Orchestra, "Caprice Futuristic" (Malneck) (C1607).
 Organ—Edward O'Henry, "Ca C'est Madrid" (O'Henry) (B3094).
 6.44: Tacet.
 6.45: Orchestral—Hylton's Orchestra, "Good Old Songs" Selection (C1592).
 Orchestral—International Concert Orchestra, "Barcarolle" ("Tales of Hoffman") (Offenbach) (B2377).
 Orchestral—New Light Symphony Orchestra, "Cavalleria Rusticana" (Mascagni) (B2377).
 6.58: Tacet.
 7.0: News session.

- 8.0 : Chimes.
 8.1 : Orchestral, foxtrot—Lyman's Californian Band, "Junior" (Donaldson).
 8.4 : Mezzo-soprano—Miss K. Hart-Stewart, "Join the Navy" (Yeomans).
 8.8 : 'Cello—Mr. Harold Beck, "La Cinquntine" (Gabriel Marie).
 8.12 : Baritone—Mr. E. A. Dowell, (a) "Monna Vanna" (Al Dublin); (b) "The World is Waiting for the Sunrise" (Seitz).
 8.18 : Mimicry—Mr. Sydney Comfort, "Fun on the Farm" (Original).
 8.23 : Instrumental—Christchurch Broadcasting Trio, (a) "Dialogue" (Bachmann); (b) "Second Valse" (Godard).
 8.33 : Popular song—Mrs. M. Sierokowski, "I'd Climb the Highest Mountain" (Brown).
 8.37 : Male quartet—Mario Chamlee and Male Trio, "Perfect Day" (Jacobs Bond); "Absent" (Metcalfe) (Brunswick 15162).
 8.43 : Songs and patter—The Happiness Boys, (a) "Happy Days and Lonely Nights" (Berlin); (b) "Blue Ridge Mountain Home" (Robison).
 8.53 : Orchestral—Dan Russe and His Oriole Orchestra, (a) "Wave the Flag of Old Chicago and March of the Maroons" (Erickson); (b) "The Illinois Loyalty Song" (Brunswick 4563).
 9.1 : Weather report and announcements.
 9.3 : Foxtrot—Lyman's Californian Band, "Suzanna" (Ward-Kippel).
 9.7 : Mezzo-soprano—Miss K. Hart-Stewart, (a) "Deep in My Heart" (Romberg); (b) "Waltz Song" ("Vagabond King") (Friml).
 9.13 : 'Cello—Mr. Harold Beck, "Rustic Dance" (Squire).
 9.17 : Baritone—Mr. E. A. Dowell, "I'm Looking for a Girl Named Mary" (Stept).
 9.21 : Humorous sketch—Mr. Sydney Comfort, "Papa and the Baby" (MS.).
 9.26 : Instrumental—Christchurch Broadcasting Trio, (a) "The Old Refrain" (Kreisler); (b) "Serenade" (Chaminade); (c) "Hungarian Dance No. 2" (Brahms).
 9.36 : Popular songs—Mrs. M. Sierokowski, (a) "Girl of My Dreams" (Clapp); (b) "What's Become of Sally" (Ager).
 9.42 : Male quartet—Kanawha Singers, (a) "A High Silk Hat and a Walking Cane" (Kahal-Marston); (b) "Mountains Ain't No Place For Bad Men" (Raskin-Kahal) (Brunswick 347).
 9.48 : Songs and patter—The Happiness Boys, (a) "My Souvenirs" (Nicholls); (b) "Sitting on the Top of the World" (Slattery).
 9.58 : Orchestral—Barnes' Blue Ridge Ramblers, (a) "The Flop-Eared Mule" (Traditional); (b) "Blue Ridge Ramblers Rag" (Traditional).
 Dance music until 11 p.m.—"Columbia" Hour.
 Foxtrot, with vocal refrain—Paul Specht's Orchestra, "I Love You, I Love You, I Love" (Fifth) (Columbia 01459).
 Foxtrot—Vern Buck's Orchestra, "What a Girl! What a Night!" (Sanders) (01469).
 Foxtrot—Stellar Dance Band, "In the Shadows" (Finck) (Regal).
 Piccadilly Players, "Who Did? You Did" (Kalmar) (01492).
 10.12 : Waltz—Continental Novelty Quintet, "Sunlight" (Regal G20432).
 Foxtrot—Jan Garber's Orchestra, "Weary River" (Silers) (01459).
 Foxtrot—Ben Selvin's Orchestra, "If I Had You" (Shapiro) (01459).
 Foxtrot—Stellar Dance Band, "The Song I Love" (de Sylva) (Regal).
 10.27 : Vocal duet—The Trix Sisters, "My Rock-a-Bye Baby" (Leslie).
 Foxtrot—The Piccadilly Players, "Happy-go-Lucky Bird" (Kalmar).
 Foxtrot—Ben Selvin's Orchestra, "If You Want the Rainbow" (Rose).
 Foxtrot—California Ramblers, "You're Just a Great Big Baby Doll" (Herscher) (Columbia 01365).
 California Ramblers, "Bless You, Sister" (Robinson) (01365).
 10.42 : Waltz—The Cavaliers, "I Loved You Then As I Love You Now" (Axt).
 Waltz—Continental Novelty Quintet, "On Board" (Regal G20432).
 Vocal duet—The Trix Sisters, "I'm Crazy Over You" (Sherman).
 10.51 : Foxtrot—Stellar Dance Band, "Heartbroken and Lonely" (Coslow).
 Foxtrot—Piccadilly Band, "A Room with a View" (Coward) (01420).
 Foxtrot—Stellar Dance Band, "I Can't Make Her Happy" (Pollack).
 Foxtrot—Piccadilly Band, "Try to Learn to Love" (Coward) (01420).
 11.0 : God Save the King.
- 10.0 : Dance session—"Columbia" Hour.
 Foxtrot—Jack Payne and the B.B.C. Dance Orchestra, "Get Up Nice and Early" (Sarony) (01765).
 Foxtrot—Stellar Dance Band, "The Toymaker's Dream" (Golden).
 Foxtrot—Hal Swain and His Band, "Am I Blue?" (Clarke and Akst).
 Foxtrot—Stellar Dance Band, "I'm Thirsty for Kisses, Hungry for Love" (Davis-Coots) (G20603).
 10.12 : Vocal—Buddy Morgan and His Veterans, "Don't Get Collegiate" (Rose).
 Foxtrot—Ray Starita and His Ambassadors, "That's What I Call Heaven" (Wimbrow) (01761).
 Foxtrot—Ipana Troubadours, "Steppin' Along" (Kernell) (01722).
 Foxtrot—Ipana Troubadours, "There's Too Many Eyes That Wanna Make Eyes At Two Pretty Eyes I Love" (Davis) (01761).
 Waltz—Stellar Dance Band, "Sleepy Valley" (Hanley) (Regal).
 Waltz—Hal Swain and His Band, "Let Me Have My Dreams" (Clarke-Akst) (Regal G20616).
 10.30 : Vocal—Pete Woolery, "Beautiful" (Stern) (Regal G20622).
 Foxtrot—Stellar Dance Band, "Lonesome Little Doll" (Cowan).
 Foxtrot—Paul Whiteman and His Orchestra, "At Twilight" (Tracy).
 Foxtrot—Jack Payne and the B.B.C. Dance Orchestra, "Wake Up and Dream" (Cole Porter) (01762).
 Ipana Troubadours, "Too Wonderful for Words" (Stamper) (01722).
 10.45 : Vocal—Buddy Morgan and His Veterans, "Sergeant Flagg and Sergeant Quirt" (Klein) (01782).
 Foxtrot—Jack Payne and the B.B.C. Dance Orchestra, "Wake Up and Dream" ("Looking at You") (Cole Porter) (01762).
 Foxtrot—Paul Whiteman and His Orchestra, "When You're Counting the Stars Alone" (Rose) (07029).
 Foxtrot—Paul Whiteman and His Orchestra, "Let's Do It" (Porter).
 Waltz—Paul Whiteman and His Orchestra, "Love Me" (Morse).
 11.0 : God Save the King.

Sunday, March 23

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

- 3.0 : Afternoon session, selected studio items, including literary selection by the Announcer.
 4.30 : Close down.
 6.0 : Children's Song Service, conducted by Uncle Leo.
 6.55 : Relay of Divine Service from Beresford Street, Congregational Church. Preacher: Rev. Lionel B. Fletcher. Choirmaster: Mr. W. Gemmell.
 8.30 : (approx) : Choral—Russian State Choir, "Storm on the Volga" (Past-schenko) (H.M.V. C1498).
 Instrumental Trio—Studio Trio, "Children's Suite" (Bizet). 1. Doll's Lullaby; 2. Frolic; 3. Girl and Boy; 4. Galop.
 Soprano—Miss Nellie Marriage, "Shepherd's Cradle Song" (Somervell).
 Violin—Miss Ina Bosworth, "Midnight Bells" (Kreisler).
 Tenor—Mr. Tom Moffitt, "Linden Lea" (Vaughan-Williams).
 Instrumental Trio—Studio Trio, "Raindrop Prelude" (Chopin).
 Male Quartet—The Revellers, "Floddin' Along" (Robison).
 Soprano—Miss Nellie Marriage, (a) "I Heard You Go By" (Wood); "Sometimes in Summer" (Sterndale-Bennett).
 Violin—Miss Ina Bosworth, "Valse Bluette" (Drigo).
 Tenor—Mr. Tom Moffitt, (a) "Mignon" (D'Hardelot); (b) "Flower Divine" (Cadman).
 Instrumental Trio—Studio Trio, "Gopak" (Moussorgsky).
 Male Quartet—The Revellers, "Wake Up! Chillun Wake Up" (Robison) (H.M.V. EA609).
 9.30 : God Save the King.

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

- 3.0 to 4.30 : Afternoon session.
 6.0 : Children's Song Service, conducted by Uncle George, assisted by Church of Christ Sunday School Choir.
 7.0 : Relay of evening service of St. Thomas' Anglican Church, Wellington South. Preacher: Rev. C. V. Rooke, M.A. Organist and Choirmaster: Mr. W. Gatheridge.
 8.15 (approx) : Studio Concert by Wellington Municipal Tramways Band, (Conductor, Mr. E. Franklin) and 2YA Artists.
 Hymn—Wellington Municipal Tramways Band, "Fierce Raged the Tempest" (Traditional).
 Selection "Euryanthe" (Weber).
 Soprano—Miss Anne Sullivan, "Prelude" (Ronald).
 Duet—Harold Williams and Francis Russell, (a) "Witness Yonder Marble Heaven" (Verdi) from "Otello"; (b) "I Lay With Cassio" from "Otello" (Verdi) (Columbia 9827).
 Tone poem—Wellington Municipal Tramways Band, "Victory" (Jenkins).
 Contralto—Miss Agnes McDavitt, "The Silver Ring" (Chaminade).
 Tenor—Mr. Chas. Edwards, "The Great Awakening" (Rimmer).
 Waltz—Wellington Municipal Tramways Band, "Senta" (Rimmer).
 Weather report and announcements.
 Soprano—Miss Anne Sullivan, "Down in the Forest" (Landon Ronald).
 Baritone—Roy Henderson, "The Signpost" (Schubert).
 Wellington Municipal Tramways Band, "Sonata Pathetique" (Beethoven).
 Contralto—Miss Agnes McDavitt, (a) "Red Sarafan" (Wishaw); (b) "Oh Man from the Fields" (Hughes).

4YA, DUNEDIN (650 KILOCYCLES)—SATURDAY, MARCH 22.

- 3.0 : Chimes. Selected gramophone items.
 4.25 : Sporting results.
 4.30 : Close down.
 5.0 : Children's hour, conducted by Aunt Anita.
 6.0 : Dinner music—"H.M.V." Hour.
 Light orchestral—Marek Weber and Orchestra, "Lehariana" (Geiger).
 'Cello—Cedric Sharpe, "Air" (Pergolesi) (B3040).
 Band—Coldstream Guards, "Wedding of the Rose" (Jessel) (B3046).
 6.14 : Tacet.
 6.15 : Orchestral—Vienna Philharmonic Orchestra, "Morning, Noon and Night in Vienna" (Suppe) (C1687).
 Light orchestra—New Mayfair Orchestra, "Five O'Clock Girl" (Ruby); (b) "Love Lies" (de Sylva) (C1653).
 'Cello—Cedric Sharpe, "Twilight" (Friml) (B3040).
 Organ—Herbert Dawson, "Evensong" (Easthope Martin) (B2263).
 Band—H.M. Coldstream Guards, "Hobomoko Intermezzo" (Reeves).
 6.44 : Tacet.
 6.45 : Trio—de Groot (violin), A. Gibilaro (piano), J. Pacey ('cello) "O Sole Mio" (Di Capua) (B2588).
 Organ—Herbert Dawson, "Idylle" (Edward Elgar) (B2263).
 Orchestral—Berlin State Orchestra, "German Dances" (Mozart).
 6.57 : Tacet.
 7.0 : News session.
 8.0 : Chimes.
 Relay from 3YA, Christchurch.

Tenor—Mr. Chas. Edwards, "Till Dawn" (Loewe).
 March—Wellington Municipal Tramways Band, "Torchlight" (May).
 God Save the King.

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

3.0 : Afternoon session gramophone recital.
 4.30 : Close down.
 5.30 : Children's song service.
 6.15 : Chimes from studio.
 6.30 : Relay of evening service from St. Paul's Presbyterian Church, Cashel Street. Preacher: Rev. W. Bower Black. Organist: Mr. Norman Williams. Choir Conductor: Mr. H. Blakeley.
 8.15 (approx.): Relay of 4YA Dunedin's programme.
 God Save the King.

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

3.0 : Chimes. Selected gramophone items.
 4.30 : Close down.
 5.30 : Children's Song Service, conducted by Big Brother Bill.
 6.15 : Close down.
 7.15 : Relay of evening service from Salvation Army Fortress. Preacher: Capt. Chandler. Band Conductor: Mr. Millard.
 8.15 (approx.): Studio programme to be rendered by Kaitorai Band, under conductorship of Mr. T. J. Kirk-Burnand, assisted by 4YA artists.
 March—The Band "The Torchlight" (May).
 Selection—The Band, "Hanover" (arrgd. Round).
 Contralto—Miss Irene Hornblow, L.R.A.M. "Negro Spiritual," "Steal Away" (Burleigh).
 Choir with organ—Temple Church Choir, London, "Praise My Soul, the King of Heaven" (Goss) (H.M.V. B3047); "O Worship the King" (Goss) (H.M.V. B3047).
 Selection—Band, "The French Maid" (Sanderson).
 Baritone—Mr. Arthur W. Alloo, (a) "The Sun God" (James); (b) "Sacrament" (M'Dermid).
 Instrumental—Bayreuth Festival Orchestra, "Prelude to Act 3," "Seigfried" (Wagner); (a) "The Lord is My Light" (Allitsen); (b) "Fire Music-Seigfried" (Wagner).
 Soprano—Miss Rita Holmes, (a) "The Lord is My Light" (Allitsen); (b) "Give Thanks and Sing" (Warren).
 Overture—The Band, "Der Freischütz" (Weber).
 Cello—Beatrice Harrison, "Viennese Melody" (Kreisler); (b) "Largo" (Handel) (H.M.V. C1847).
 Contralto—Miss Irene Hornblow, L.R.A.M. "Deep River" (Burleigh), "Sometimes I Feel" (Burleigh).
 Concert Valse—The Band, "Sunshine and Shadow" (Kela Bela).
 Chorus—Don Cossacks, "Evening Bells" (Jaroff); "Serenade" (trdlt.)
 Baritone—Mr. Arthur W. Alloo, "On Away Awake Beloved" (Cowan).
 March—The Band, "The Emperor" (Moorhouse).
 Soprano—Miss Rita Holmes, "Wipe All Tears Away" (Blaze).
 Hymn tunes, The Band, "Hymn of Praise" (Kirk-Burnand); (b) "Radiocast" (Kirk-Burnand).
 9.30 : God Save the King.

"Bus-bar Aerial"

THOSE experimenters who are fortunate enough to have a room in which they can carry out their wireless experiments uninterrupted, are apt to use two or three sets in different parts of the room, and connect the aerial to one or the other as required. When the set is some distance from the lead-in, the trailing wire may get in the way, and prove very inconvenient. A good system in such a room is to erect a "bus-bar" aerial. This is a very simple device, consisting of

two rod or other aerial insulators, one on each side of the room, joined by a piece of bare aerial wire pulled taut. A flexible connection, soldered to this wire at one end, is taken to the aerial lead-in. A number of flexible wires are then prepared, one end of each being fitted with a spade terminal and the other with a spring clip, specimens of which can be obtained at any wireless accessory shop. The spring clips are soldered firmly to the ends of the flexible wires, and when it is desired, to connect a particular set, a lead is clipped on the bus-bar aerial, the spade end of the lead being joined to the set. The earth terminals of all sets can be kept permanently joined to the earth lead, or a bus-bar earth wire can be run along one side of the room and used in a manner similar to the bus-bar aerial. This bus-bar scheme serves to keep loose aerial wires out of the way, and adds to the efficiency of reception by preventing unwanted capacity effects, which often creep in when long trailing aerial leads are used.

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A Well-known Wireless Pioneer

Faraday—Inventor and Constructor

FEW of those listeners who speak freely to-day of the merits or demerits of .0003 or .0005 microfarad condensers, realise that they are paying an unwitting tribute to the memory of a man who has been described as one of the greatest physicists that ever lived. This may, in the light of the advancement of the knowledge of physics during the present century, appear to be a rather overwhelming claim, but it is by no means extravagant when applied to Faraday.

Science is full of romance—though it is not always apparent. A very small incident may influence the policy of a nation or the life of an individual. So it was with Faraday, whose early employment was that of a journeyman bookbinder, and it was in this vocation that he came in contact with a customer who was a member of the Royal Institution.

Faraday was not in love with trade from the ordinary point of view. It did not appeal to him; in fact, he regarded it as selfish and debasing. It is not, therefore, very surprising when this young man was given a ticket by Mr. Dance, the member referred to, for a lecture at the Royal Institution, that he decided to throw himself heart and soul into the exploration of some of the hidden mysteries of nature.

This lecture was the last of a series of four delivered by Davy, and Faraday made voluminous notes, which he afterwards copied in fair form, and sent to Davy, explaining at the same time how much he loathed the idea of trade and how he wished to desert it and follow science. This letter met with a kindly reply from Davy, but something better than this reply was to follow, for soon after a letter was brought to his house late at night by Davy's servant asking him to call at the Royal Institution for an interview. The immediate result was that he was engaged as Davy's assistant at twenty-five shillings a week. The ultimate result is the famous Davy-Faraday Laboratory of to-day.

Men of science had long believed that there was an intimate relation between magnetism and electricity, but evidence was lacking to prove this to be a fact. Faraday provided the evidence. In doing so he laid the foundation of electro-magnetism as we know it and paved the way for the dynamo, motor, induction coil, or transformer, and all the variations of these that have placed electricity at the service of mankind.

Since almost everyone who uses a valve set employs an audio-frequency transformer, it may be interesting to consider Faraday's first induction coil. It consisted of a simple iron ring, with separate windings on each semi-circle, there being no connection between the two coils. After many experiments he found that if a current was allowed to pass through one winding, and then stopped, there was a momentary difference of potential "induced" in the other at the instant of making and breaking circuit.

Call one the primary and the other the secondary, and you have the soul of the transformer as it was, is, and must remain—the most important factor in the transmission of light, heat, power and wireless.

ON August 28, 1831, Faraday made his first successful experiment in electro-magnetic induction. Later in the same year he described his discovery at a meeting of the Royal Society. This may be called the birthday of electro-magnetism. So it came about that the foundation of the whole of electrical engineering was given to the world by means of a simple paper read by a man who expressed himself always with the greatest simplicity.

The publication of Faraday's diary is, at the moment, under consideration, and it is to be hoped that it will, in due course, be available for those who desire to study seriously the development of electrical engineering. It is intended this year to hold centenary celebrations in Faraday's honour, and it is anticipated that the publication of his diary will coincide with this event.

FARADAY had many other interests in the realm of physics besides electricity. As a research chemist he did some remarkable work, discovering new carbon-chlorine combinations and succeeding in liquefying various gases. Apart from this he investigated the properties of glass, and this led him to the study of polarised light and the behaviour of a polarised ray in a magnetic field. Indeed, his researches were so extensive that they covered not only chemical, physical, and electrical matters, but included a study of ice and the movements of glaciers.

Faraday died at Hampton Court in 1867 in a house placed at his disposal by Queen Victoria. His acceptance of this residence may be attributed to a nice degree of delicatessen, for which credit has been ascribed to the Prince Consort.

It is impossible in this short article to convey more than an outline of the importance of the pioneer work—inventive and constructive—that Faraday accomplished, but it should be remembered by everyone who pushes a button, turns on the light, or switches on a wireless set, that they owe a debt to the genius of the one-time bookbinder—Michael Faraday.



ROYDS-HOWARD CO.
 444 COLONIA ST. CHRISTCHURCH



First Wealth is Health

Cleanliness and System are Essential

By MRS. C. G. MACQUARRIE, Vice-President of the Radiant Health Society.

HEALTH to-day, when so much of life and so many lives are lived at high pressure, is one of the most important problems of the human race, and by reason of its importance one of the most interesting. The rightful heritage of every human being, few develop or conserve it as they should.

Sickness, or even indifferent health, spells poor spirits, which serve no one and advances nothing. Health means that all the bodily functions are carried on with such ease that we are unconscious of possessing such organs as heart, lungs, liver or stomach; that a feeling of fitness and well-being is experienced to the extent of making life a constant joy, being both mentally and bodily fully alive.

People become ill because they disregard the fundamental principles on which the health of the body depends. The omissions and transgressions responsible for wrong living, which cause disease of the body, are insufficient food, too much food, wrong combinations of food; lack of fresh air, sunshine, natural rest or sleep, and insufficient exercise. Health can be obtained or regained by the observance of essential rules, the first being to take plenty of fresh air and sunshine. Thackeray rightly says that man subsists upon the air he breathes more than upon his meat and drink. Who would think of keeping animals or plants continuously covered, away from air or light? We know that ere long they would wither, waste away and die. Yet many people are content to spend their existence almost entirely in passing from one ill-ventilated room to another, instead of availing themselves of sunshine and pure air, and taking care to spend their sleeping hours in rooms that are well ventilated.

FOOD is necessary to supply the material for building up a constantly changing body, and to supply the elements which waste has depleted; certain essential salts, vitamins, carbohydrates and proteins. Fruit juices, orange, lemon, grapefruit, etc., are valuable, not only as drinks, but as food; and are further potent means

of assisting nature to clear away the accumulation of toxic poisons, which characterise so many chronic diseases. A sufficient quantity of water should also be taken internally every day. Few people realise the great part played by water in keeping the internal system thoroughly clean.

External cleanliness should, of course, be scrupulously observed, daily baths, according to individual requirements—either cold or tepid in the morning or warm before retiring—being taken. Sufferers from gout or rheumatism will find a weekly hot bath, to which a pound of Epsom's salts has been added, to be very beneficial.

Whatever exercises or system of exercises are adopted, one's heart and soul should be put into them. A half-hearted, rather-not-do-it attitude can only give very poor results. Go into the business with a bright, cheerful frame of mind and the results will be excellent.

Ten minutes devoted daily to regular exercise, preferably with electrical massage, will postpone middle age almost indefinitely. The brain cells receive an impression of ideal health, you subconsciously picture yourself ideally healthy and so attain to your ideal. The power of imagination is one of the greatest with which nature has endowed us. By its aid, the earnest and regular cultivation of right habits of thought, we create a magnetic power that will draw health to us, change ourselves and the world about us.

Another Milestone

ON the 6th of this month, exactly twenty-one years after the first installation of electric power in the city of Auckland, the Minister of Public Works (Hon. E. A. Ransom) turned off the steam generating units and switched over the supply entirely to the Public Works hydro-electric system, at the same time declaring open the new building of the Auckland Power Board.

Brightening up the Home

A Touch of Colour Here and There

Re-Coach the Living-rooms Before Winter

BEFORE another moon wanes we shall put back our clocks to standard time, and many of us will sadly miss that extra half-hour's daylight and its opportunity for enjoying "the glorious out-of-doors" at close of day.

It behoves us, therefore, to take a look round our rooms and see what can be done to brighten the evenings that must from now onwards be spent indoors. Some, no doubt, will have one or more rooms redecorated, and to them we suggest a cheerful note. Let there be light—that in plenty, of the right sort, without glare—and do not be afraid of colour. To those who have not already decided upon one or more colour schemes for themselves, the following combinations may appeal. All of them can be adapted to any room, be it sitting-room, bedroom, or kitchen.

Tan, rust and yellow with a touch of deep blue make a beautiful room for a man's own, for a library or a study.

Yellowy buff walls, delphinium blue and Parma violet will harmonise well, while for rooms with a sunny aspect, greeny-gray walls, leaf green and a touch of mandarin-red can be substituted.

Rose-red, soft green with a touch of black; yellowy-tan and leaf-green; black and ivory with jade green; dark blue and red with a touch of green all combine well.

Aim at a light ceiling (not necessarily white or cream—pale blue or creamy yellow can be most attractive) slightly darker walls and darker floors. Bright splashes of colour can be introduced by one or more articles of painted or enamelled furniture.

Where the paper in a sitting-room, or a chief living-room is still quite good, we may still have tired of it or it may have become monotonous to the eye, in these days of rapid change. If it is plain, mottled, of a neutral tint, or of a fairly nondescript background, we can transform it, and indeed the whole room, by simply hanging a cut-out decoration of wall-paper over it at one or more corners. These corners come in hanging sprays of Virginia creeper, rambling roses, or wisteria; they are easily applied, graceful in design and highly artistic in colour-

ing. Should you feel inclined to go farther, and picking up the chief colour in the new design, repaint the picture rail and woodwork, you will be delighted with the result. There are now many good enamels and paints on the market, supplied with such full and explicit instructions, that even the average woman, who claims no special knowledge, can easily undertake the work herself.

WHERE the walls are too patterned to admit of the corner decoration suggested, they can be brought up-to-date by bordering each wall space, to produce a panelled effect. This, too, is only the work of an hour or two. A harmonising but contrasting border should be selected, i.e., a light border on a dark paper, and vice versa. A rearrangement of the actual furniture is also usually called for at different seasons of the year, and this panelling effect will suggest many a pleasing grouping.

Coloured chintzes and cretonnes, so effective in design, and now being sold very reasonably, can be used to advantage to introduce a note of colour or carry on the scheme, and can often replace to advantage the lighter curtains. A painted and enamelled floor will often bring furniture and draperies into line, and can easily be kept in good condition. A worn but still good linoleum responds admirably to a coat of paint or enamel, and provides an excellent background for rugs or mats. In fact, these paints and enamels are really invaluable as an inexpensive, easy means of introducing colour, and freshening anything from a vase to shabby tables, chairs, fittings or chests.

With the Optimist

"Any luck with your bees this year?"
"Well, I haven't exactly had any honey from them, but one of them gave that rate-collector fellow an awful sting on his nose!"

Money doesn't mean everything in this world, but somehow everything in this world seems to mean money.

The Electric Kitchen Banishes the Drudgery of Housekeeping



HERE is an element of tragedy in the lives of many women burdened beyond their strength by the care of a household, of which the preparing of meals forms so large a part. What the all-electric kitchen can mean to such, is a vision constantly before my mind. I long to see every woman enjoy the comfort, the easing of the constant effort to catch up with the daily routine, the sense of freedom from the overwhelming necessity to be always cleaning in the kitchen, the release from anxious watch over cooking foods which the use of an electric range so surely means. A household must be fed, and someone must spend considerable time attending to the matter, but the task need not make cruel demands on any woman's energy and time, if she is able to make the electric range her servant.

Women in the past have often entertained a more or less secret sense of personal degradation when they were obliged to attend to their own kitchen work. It was the disagreeable dirt and general messiness which invariably accompanied cooking with a fuel stove which gave so many women this idea. The feeling became less troublesome with the advent of gas, but can be entirely non-existent to any woman now in the wholly electric kitchen. Granted a woman has the home-making instinct and takes some measure of pride in attending to the needs of her family, she should be able to enjoy a happy, refining sense of emancipation from drudgery. Cooking done by electricity can be brought to a fine art. Anything which is done exquisitely well becomes an art, and the art of cooking can be brought to a point of perfection when electricity is the cooking medium. An ideal electric kitchen can be a delightful place, where every minute spent is filled with pleasure; the surroundings themselves induce a sense of pride and joyous effort, and a continual improvement in the daily kitchen work.

Much can be said about the arrangements of the kitchen appointments. I have in mind the proximity of the cooking table or bench to the cupboards containing the stores and utensils. In many up-to-date kitchens, cupboards are built into the walls where everything can be tidily stowed away. These cupboards are not, however, always so situated that the things to be used when cooking are directly to hand when standing in front of the table. This means everything which will be required must be gathered together beforehand if the work is to be carried out with dispatch. To be in a position to reach each article as required, and to replace it again immediately when finished with, saves a great amount of time, all litter and confusion about the food, and can quite eliminate the fussiness and bother which often makes a person feel peeved at the mere thought of starting to cook.

To organise affairs so that there is absence of confusion when cooking is one of the very first steps toward the

In this article Mrs. Barrington, a prominent demonstrator and cookery expert, describes the kitchen of the modern home. She tells how electricity has come to the aid of the housewife who has been handicapped by the dull routine of housekeeping. Her long practical experience has enabled her to give some valuable information for operating electrical devices economically.

day when the prospect of an hour's baking will arouse only pleasant thoughts and anticipations. Many a time one might mix a cake when stored heat was going to waste, if relieved of the cleaning-up business which can be so tiresome. When cupboards are to one side of the cooking table, with the goods and utensils conveniently placed, and the sink on the other, there can be very little about cooking matters to be a nuisance.

To derive a full measure of happiness from the use of an electric range, the mind should be free from anxiety regarding running expenses. It is by the unnecessary expenditure of electricity that the startling accounts are raised. Thought and a certain watchfulness must be exercised at all times as a safeguard against the needless consumption of power. Even so, I do not think anyone need make so great an effort in this direction that their comfort and convenience be diminished, or their pleasure in the use of the range checked by continual anxiety. There should be a real, happy interest in the various ways in which economy can be effected, and all the cooking for a household can be done with an easy mind, if the user of the range concentrates sufficiently on the business in hand to avoid these periods of waste.

Waste is occasioned by allowing the oven to overheat, neglecting to turn the elements low or off when required; by not having goods ready for the oven when the temperature has risen sufficiently; or by using utensils which do not contact the boiling elements correctly; by placing more water on to boil than will be required; by heating up the oven for a short period of cooking which could have been done previously on stored heat. In such ways as these electricity is squandered, and someone has to pay for it afterwards. On the other hand, if it is desirable that some cold dish be heated up and no other cooking is being done at the time, pop it into the oven without worrying over it; the range is there for your convenience and wellbeing, and the idea is obvious; every comfort, but no waste; it is waste that hurts.

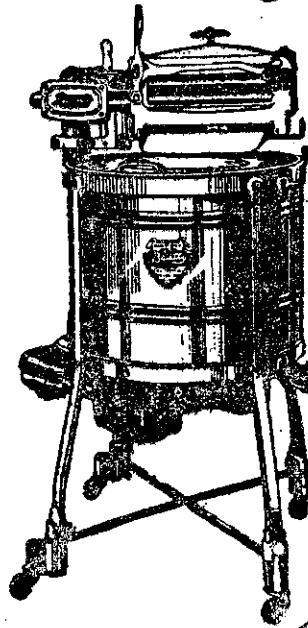
To learn to use an electric range without trouble is mostly a matter of commonsense. Many women begin with a preconceived idea that it must prove a difficult matter and some seem to think they will have to learn cooking all over again. Most of the women I have met who really fell into difficulties were those who suffered

actual fear of the range, but they are only isolated examples. On the other hand, hundreds of women throughout New Zealand, undisturbed by thoughts of possible failure, go straight ahead from the offset and enjoy complete success in every way. It appears to be largely a matter of temperament. It is delightfully easy to cook with an electric range, yet it is well to obtain some information from those experienced in their use. It saves time which might otherwise be spent puzzling out the various tem-

peratures required for different kinds of foods and the placements of the shelves. The more experience I gather, and question users of electric ranges, the more amazed I become at the diversity of habits evolved. No two experts seem to follow the same procedure throughout in heat regulation, etc., so the only thing for the beginner in the art of electric cooking, is to adopt the advice of some experienced person until feeling quite at home with her range, then to work out a system to suit individual habits and taste. Some people like goods browned more than others, some are inclined to be forgetful, and others, again, are too busy to give all the attention they wish to cooking matters, but, what ever the mind or condition, the regulation of heat can be so accurately managed, and every requirement met. In these times every woman within the reach of electricity can enjoy her kitchen work.

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HOME-CRAFT

GLEANINGS

By "GADABOUT"

At Your Service

If you are needing information or advice regarding electrical equipment, "Gadabout" is here to help you. Correspondence will be welcomed. Replies will appear in the next issue that goes to press, or sent by post if a stamped addressed envelope is enclosed, so do not hesitate to write.—"Gadabout," "Radio Record and Electric Home Journal," P.O. Box 1032, Wellington.

Preserving a Husband

AN American paper called "Daily Grind" gives the following advice:

A good many husbands are utterly spoilt by mismanagement.

Some women keep them constantly in hot water.

Others let them freeze by carelessness and indifference.

Some keep them in a stew by irritating words and ways.

Others roast them.

Some keep them in a "pickle" all their lives.

It cannot be expected that any husband will be good and tender if managed in that way, but they are really delicious when properly treated.

In selecting a husband you should not be guided by the silvery appearance, as in buying a mackerel, nor by the golden tint, as if you wanted a salmon.

Be sure to select him yourself, as tastes differ.

Do not go to the market for him, as the best are always brought to your door.

See that the linen in which you wrap him is nicely laundered, with the required number of bottoms tightly sewn on.

Tie him by a strong silk cord called "comfort," as the one called "duty" is weak.

Make a clear, steady fire of love, cheerfulness and neatness. Set him as near this as seems to agree with him.

Do not be uneasy if he splutters and fizz's, for some will do this until they are quite done. Add a little sugar in the form of kisses, but no vinegar under any circumstances.

A little spice improves him, but must be used with judgment.

Do not stick any sharp instrument into him, to see if he is becoming tender, but stir gently, when necessary. You cannot fail to know when he is done.

If thus treated you will find that he will be agreeable to you and keep as long as you want, unless you become careless and set him in a cold place.

For the Handy Man

AN electric soldering iron is an absolute boon to the amateur mechanic. It does away with the trouble of the tinning constantly burning off, and the continual need of replacing the iron in the fire. One can be bought for alternating or direct current for any voltage for a few shillings.

The Motorists' Paradise

BEFORE a football match at Pasadena, in California, the authorities swept the streets with a big, portable electric magnet, to ensure puncture-

proof (and consequently unobstructed) roads for the thousands of cars travelling to and from the city. The magnet succeeded in collecting several sackfuls of nails, tacks, and pieces of scrap iron.

Make them Last

THE life of bathing caps and shoes can be greatly prolonged if, after each wearing, they are washed in lukewarm water, and thoroughly dried. They should then be dusted over with talcum powder, and kept in a dry, airy place.

first of all mend any holes or tears and sew up the mouths of the outside pockets not provided with flaps. Then in a large bucket of soft water put half a pound of sugar of lead (acetate lead), and the same quantity of powdered alum. Stir at intervals until it becomes clear. Then pour it off into another bucket, put the garment in, and allow it to remain for 24 hours. Then without wringing it, hang it up in the shade to dry, and then give it a good brush. The total cost does not exceed one shilling, and it is invaluable for outdoor work in bad weather.

ling. It is a good plan to gently place your hands over their ears and play and talk to them at the time to mitigate the noise and distract their attention.

Answers to Correspondents

"JAMMY."—I think, "Jammy," that you probably cook your jam either too long or at too high a temperature, which makes it syrupy and a bad colour. After it has come to the boil it should not be allowed to do more than gently simmer, until it jellies quickly. Will you try again and let me know result?

"SCYLLA."—It is annoying to have an otherwise good cake turn out a bad shape. The reason of it rising in the middle and not at the sides is usually that the sides of the tin, or paper round the tin, have been too heavily greased, and it is too much uphill work for the cake to climb the sticky surface. Try leaving the sides of the tin ungreated to give the sides of the cake a fair start with the middle. Another help, when placing the mixture in the tin, is to pile it higher at the sides and dented in the middle.

"XERNES."—Soak the corned beef overnight in cold water, and next day when you wish to cook it, put it on in boiling water to which you have added a tablespoonful of vinegar; cook very slowly never letting it more than simmer, and I do not think you will again complain of its being hard and too salt, "Xernex."

"THRIFTY."—Yes, your old ginger-jar will make a lovely table-lamp. A china-riveter will bore a hole through the bottom of the jar, through which the cord can pass; then if the jar has no lid, have a small round wood block fitted, with another hole for the cord, and on this block a lampholder. Treat yourself to one of the new parchment shades, and you will be delighted with the result.

"MUSICIAN."—Yes, that painful glare can be eliminated. Particulars have been sent you of the ideal form of piano, or, rather, music lighting. It is fixed at either the top or the bottom of the music stand, lights the music and the music only. It is something on the same principle that one sees for reflector lighting in shop windows, only a smaller scale.

... Love ...

(From the French of Boufflers).

"Oh, Love's a fause, deceitful loon,"
Fu' often said my mither—
"Though fair his face, an' plump an' roon"
He's waur than ony ether!"
I made believe to ken richt weel,
And fear't na that sae wee a chiel,
Could put me in a swither!
Yestreen I saw young Jamie Broon
An' bonnie Jean thegither!
He spak tae her sae soft an' lown'
They smiled on ane anither.
He spak' o' some, sweet, pawkie chiel,
The very same—I kent richt weel—
Wha frichfit sae my mither!
Tae bring the mystery tae an' en',
Nae longer will I swither;
I'll seek for Love wi' Willie Glen,
An' never heed my mither.
An' e'en should Love turn oot a deil,
We needna' fear sae wee a chiel—
The two o' us thegither.

—J. L. Kelly, 1876.

Saving Laundry

DO you know the felt-backed tablecloths that are made of oil-cloth, but yet look like damask? They can be wiped with a damp cloth and need never be tubbed. There is, too, a new waterproof checked gingham that can be wiped clean and even ironed when creased. It makes charming curtains for the breakfast nook or bathroom.

Storm-proof

IF you want to render an old coat impervious to the heaviest downpour,

Hats!

THE right "off-the-face" hats seem to have come to stay. At least, they have the advantage of being really new, but I prophesy that the backs will become shorter as the season advances to avoid rubbing against furs and fur collars.

Trains and Tunnels

THE roar of trains passing one another and entering tunnels often terrifies sensitive children when travel-

Keep Stoves Bright and Shiny

EVERY month electricity becomes available to more rural homes, and with it comes a long chain of labour-saving devices that lighten housework.

Electric ranges are easily cared for. Women using electric ranges spend on an average about 30 minutes a week on their care, whereas those using wood or coal ranges spend over three hours per week.

No kitchen is complete without a cooking stove. It is the most used piece of equipment in the home workshop, and is therefore worth the expenditure of a little time in caring for it. The smooth enamel and porcelain finishes so much in vogue are great labour savers and can be kept clean with very little trouble. There is also an electric range of New Zealand manufacture, the cooking top of which is nickel-plated. This gives excellent results, and is kept clean and bright with a minimum of trouble.

For the most pleasing results it is best to wipe such surfaces only when the stove is cool. Soap and water are admirable cleansers, but acid removes the glazed finish from porcelain and spots it. The best way to avoid these blemishes is to avoid spilling vinegar, tomatoes and such materials. Sliding utensils carelessly across porcelain is also likely to cause scratches.

A goodly number of the home-maker's working hours are necessarily spent in the kitchen, and she should not be expected to work in either glare or shadow, and never standing in her own light. A soft, central light, with another over the range, increases both the efficiency of the range and the cook. Never locate the range so that draughts or breezes play upon it, as the heat is carried away from the utensils and fuel wasted by the cooking process being prolonged.

Electric Bread Slicer

TO DELIVER to customers loaves of bread neatly sliced and ready for the table or for sandwich making, a baker of St. Louis, Missouri, has invented a machine which can divide a loaf into twenty-nine even slices with one slash of its blades. Requiring only one operator, it can cut 1000 loaves in an hour. The bread is loaded on a belt conveyor, and all the operator has to do is press her foot upon a control pedal. The machine does the rest.

The loaves, moving along the conveyor, pass through the slicer, which is a row of upright blades set in a frame much like an oversized egg slicer. There they are cut in quick succession, each emerging with the slices still preserving the form of the original loaf. Before the sliced loaves are ready to be put on sale, each one must be wrapped in wax paper to avoid all possibility of the bread's becoming dry before use. The machine and its conveyor system are electric in operation, being driven by a small motor.

AT Princeton University, in the United States, the heart of a turtle detached from its body, was kept beating for thirty-six hours, and by means of an ingenious appliance recorded its own pulsations.

A Little Talk on Ironing

The Do's and the Don'ts for Full Success

THE modern electric iron is a great improvement over the old-fashioned irons, that were heated up on the kitchen stove. As it is always ready for use, ironing can often be done in the cool of the evening or at any time when there is an hour to spare, but the time to think about it for the purpose of making it still easier, is before the washing is finished. Hang the clothes on the line as straight as possible and like things together, so that they are ready to take down in order from the line. It is easier to iron articles that have been folded to avoid extra wrinkles. If we have time to take table linen, towels and sheets from the line, when still slightly damp, we may not need to sprinkle them, but all things are better for being tightly rolled up for an hour or two. The damper the linen, the fresher, crisper, and glossier it will be when ironed. Particular pains should be taken to see that the sprinkling is even, so that the moisture will penetrate thoroughly and prevent spots. In warm weather, it is not wise to leave clothes that have been dampened as it heightens the risk of mildew.

Little girls' dresses, boys' blouses, etc., should have the sleeves ironed first, then the collar, yoke and body, ironing the fronts first, and then the backs. Hold the iron on the button-hole a few seconds, and to have the collar and hands especially nice, iron first on the wrong side and then on the right.

FOR men's underwear, the suit should be buttoned, smoothed out straight on the ironing board, and the front done first. Then iron each sleeve toward the cuff, fold the cuff to the shoulder and iron again. Fold the sleeves across the garment. Do the legs in the same manner, then fold the whole suit up from the waist line and press back. This method is good for either cotton, or silk and cotton mixture, but woollen underwear should be ironed on the wrong side.

Hints for Silks.

ALL silk lingerie should be ironed on the wrong side with a cool iron, and to bring out the lovely soft sheen of the silk, again on the right side when dry. Never iron across the weave for this breaks the delicate strands and shortens the life of the silk. Roll silk things carefully when dampening them, to minimise creases, and never touch with a too hot iron, as silk scorches easily. If ironed when too damp, silk looks stiff and papery.

Iron the cuffs of shirts first as they are the showy part of a sleeve. Then fold the sleeve with the seam and iron from shoulder to cuff. Pass the hand through the sleeve to straighten out wrinkles and iron on the back. Iron bag

the cuffs on the right side, and if they are French ones, on the inside also. Then iron the front, the back, and lastly, the neckband, in the order given. Button the shirt and lay it front down on the board. Fold each side of the shirt over about the width of the sleeve and turn the sleeves lengthwise. Then, fold the whole shirt once across. Tucked fronts should have the deep tucks raised with a thin paper knife and the material beneath pressed smooth. Flannel shirts should be ironed on the wrong side.

Practical Points.

SILK blouses and dresses should always be ironed on the wrong side, with the grain or lengthwise of the goods. It is a safe rule to iron the sleeves of the garment first and the collars last. If the sleeves have cuffs, the cuffs should be ironed first, and then the body of the sleeve. When they are perfectly smooth, iron the front and then the back, and finish with the collar. All seams must be ironed until quite dry, or they will wrinkle and pull the garment out of shape.

Coloured ginghams should not be ironed with a very hot iron, as it causes the colours to become dull and faded.

Linen must be ironed very wet, or the wrinkles simply will not come out. To iron linen on the wrong side, keeps it beautifully smooth and glossy, but it scorches very easily and scorching is fatal, since it breaks the strands of the fabric.

Tablecloths and table napkins should be ironed on both sides, to give them a rich, soft gloss. Fold lengthwise and iron the folds but do not iron the cross-wise folds.

There is no strain about ironing with an electric iron, as we can give all our attention to what we are doing. It is not the ironing that wears one out, but the uncertainty about the irons, when doing it in the bad old way. An electric iron is the perfect solution of all ironing problems.

Novel Perfume Spray

SPRAYING a tiny jet of perfume when its plunger is pushed down, a novel atomizer resembling a cigarette lighter in appearance may be carried in a woman's hand-bag, it is said, without danger of spilling its contents. Its nozzle is covered with a cap which is released by a plunger. When the apparatus is closed, a groove in the plunger fits over the cap to hold it in place, while the plunger in turn must be pressed down before the cap can move. Thus, its inventors claim, the device is made air-tight and proof against leakage. To operate the atomizer, one need only press the plunger twice—once to release the cap and the second time to eject the spray of perfume. The atomizer is manufactured in two sizes—for carrying in the hand-bag and for the dresser.

A Brilliant Woman Student

NEWS comes from overseas that Miss Winifred Hackett, a 23-year-old student at Birmingham University, has beaten all the men in the electrical engineering department of the university, and won a scholarship entitling her to a year's research course. In a public tribute to the excellence of her work paid by Professor Cramp, chief of the department, he declared she was head and shoulders above any of the men in originality, persistence, and patience.

How to Make Croquettes

MEATLESS dishes so often take the form of croquettes that it is worth while taking a little trouble to turn them out in such a way that they tempt the appetite. Fish, vegetables, cereals, cheese, stewed fruit, in fact, almost any form of pre-cooked food can be used, and often made to go farther than they would otherwise do, by combining with some other ingredient, such as mashed potato, or breadcrumbs, and binding with raw egg or thick sauce.

When all the ingredients have been combined into one mixture, if it is still hot, it should be left to cool before shaping. Then divide into equal portions, shape with the hands into balls, rolls or cones, and use a little flour if inclined to stick. For good appearance it is important to have the croquettes alike in size and shape, and the surfaces smooth.

Next dip each in slightly beaten egg and roll in fine bread crumbs. Fry in a basket in deep fat at a temperature of about 350 degrees Fahrenheit. If the temperature of the fat is higher, they are inclined to brown before they are heated through.

Do not consider it a waste of time to garnish the dish before serving, as although the nourishing qualities of the food are the same without garnishes, they have not the same appeal to the eye, and look of food undoubtedly plays a great part towards its enjoyment or otherwise. Choose a dish of suitable size, so that the food looks neither crowded nor lost, and garnish savoury dishes with rings of hard-boiled eggs, slices, strips or rings of vegetables, or parsley; sweet dishes with whipped cream or chopped nuts.

Nut and Potato Logs

MIX 2oz. of fresh breadcrumbs, 1lb. of mashed potatoes, 1 gill milk, and 2oz. of butter, and beat until a stiff paste is formed. Add 1 egg and cook a little longer. Then add a teaspoon of mixed herbs, 3oz. of nuts, salt and pepper. Allow to cool, roll out into cylindrical shapes, flattening the ends. Dip into beaten egg, cover with breadcrumbs, and fry in deep fat. Sprinkle with chopped parsley, and serve with white sauce to which a little curry powder has been added.

Sybil: Yes, she said I was too ugly ever to marry.

Mabel: The little beast. Still, that's better than telling lies about you isn't it?

The HOME KITCHEN

By "ELECTRA"

Recipes for Vegetarian Dishes

Salmon Mould.

MELT three tablespoons of butter or dripping, add half a cup of bread-crumbs and nearly two cups of milk and cook about three minutes, or until crumbs are soft. Add two and a-half cups of cooked flaked salmon or other fish, one tablespoon chopped parsley and two slightly beaten eggs. Add pepper and salt to taste and turn into a greased mould. Set in a pan of hot water and bake in a moderate oven (350 degrees F.) until firm, or until a knife inserted in the centre comes out clean. If a ring mould is used, the centre can be filled with chopped cooked spinach, peas or carrots. Looks and tastes good and supplies all the necessary elements for a complete meal!

Smoked Fish de Luxe.

WASH the fish, pour boiling water over it, remove the backbone and cut the fish in half. Trim the tail and cut off the fins. Make a stuffing with 3oz. of breadcrumbs, 1 teaspoon of finely-chopped onion, a little milk, 1 teaspoon of chopped parsley, pepper and salt, and $\frac{1}{2}$ teaspoon of grated lemon rind, and spread it on half of the fish. Put the other half on the top. Lift it into a fireproof dish, cover with buttered paper, and bake at 360 degrees for 20 minutes. Serve with creamed potatoes, green peas or baked tomatoes.

Fish Cakes.

TAKE 1½lb. cooked fish, ½lb. mashed potatoes, 1½oz. melted butter, salt and pepper, 1 teaspoon of chopped parsley, $\frac{1}{2}$ teaspoon of mace, a little milk or beaten egg to bind. Proceed as directed for croquettes.

Hominy and Cheese.

TAKE 2 cups of left-over hominy, porridge or other cereal, add about 1 cup of milk and half a cup of grated cheese. Turn into a greased baking-dish, after mixing well, and sprinkle the top with another half-cup of grated cheese. Bake in a moderate oven (350 degrees F.) for 30 minutes. Alternatively, the hominy or other cereal can be blended with half a cup of grated cheese, formed into croquettes, egg and breadcrumbs, and fried.

Savoury Pancakes and Cheese Sauce.

SIFT 4oz. of flour and $\frac{1}{2}$ teaspoon of salt together. Make a hole in the centre, stir in the egg and half the milk gradually. Beat thoroughly, and add the remainder of the milk and a little pepper. Fry in lard, and turn on to a grease-proof paper. Place a cooked leek in the centre of each pan-

cake. Roll up and serve with cheese sauce made by melting ½oz. of butter, stirring in ½oz. flour, and adding gradually $\frac{1}{2}$ pint milk. Cook for a few minutes, add a pinch of salt, and 2oz. grated cheese, and continue heating gently until the cheese has melted.

Egg Souffle.

CREAM two tablespoons of butter, add the same amount of flour, and pour on gradually one cup of scalded milk and one of cream. Cook in double boiler for five minutes, and add the yolks of four eggs, beaten until thick and lemon-coloured. Remove from fire, add salt and pepper, and fold in whites of eggs, beaten until stiff and dry. Turn into a buttered dish, or buttered individual moulds, set in pan of hot water, and bake in a slow oven until firm. Serve with white sauce, highly seasoned with celery salt, paprika and onion juice.

Eggs and Tomatoes.

CUT a slice off the end of a large tomato, scoop out some of the pulp, and season the inside of the tomato with salt and pepper. Into it carefully break an egg, put on the lid, and bake until the egg is set. Serve cold, garnished with salad.

Scotch Woodcock.

MAKE a thin white sauce of butter, flour, milk and seasonings. Add four hard-boiled eggs finely chopped, and season with anchovy sauce. Serve on buttered toast. Anchovy sauce may be omitted, and one cup of asparagus tips added.

Baked Stuffed Onions.

PEEL 5 or 6 large yellow onions and cook in boiling salted water for five minutes. Take out the centres, being careful not to break the shells. Drain well. Parboil a small green pepper, and remove the seeds. Peel 12 large mushroom caps. Chop the pepper and half the mushrooms. Fry slightly in a little fat, with the onion scooped from the centres, chopped. Add $\frac{1}{2}$ cup of breadcrumbs, salt and pepper to taste, and mix well. Fill the onions with the mixture, dot with bits of butter, and place a mushroom cap on each. Put in a baking dish with a little water, cover and bake at 350 degrees for about an hour. Remove cover during the last 15 minutes to brown slightly. These are delicious even without the mushrooms.

Macedoine of Vegetables.

MELT 3 tablespoons of butter, add 1 tablespoonful each of chopped onion and chopped pimiento. Cook slowly for 5 minutes. Add 2 tablespoons of flour and mix well. Add 2 cups of canned tomatoes, or their equi-

Readers of the "Radio Record and Electric Home Journal" who have cooking difficulties or require help with recipes for electric cooking, or desire special hints in connection with their electric ranges, may write to "Electra," P.O. Box 1032, Wellington. Replies will be published either in these columns or in urgent cases sent direct, provided a stamped addressed envelope is enclosed.

Meat is not Essential

Dishes for Lent are Tasty and Appetising

WHETHER or not we have decided to keep Lent as a fast, many of us welcome a partial or temporary abstinence from meat and find our health all the better for it. To a gouty person the advantages of a meatless diet or one in which meat is restricted is too obvious to need enlarging upon.

At the same time it is necessary for the housewife to ensure that the substitutes employed contain the needful protein for body-building purposes in the case of young people, and for the repair of waste tissue and the furnishing of energy for old and young alike. Happily it is contained in cheese, milk, eggs, fish, cereals, beans, peas and lentils.

Carbo-hydrates, which also provide energy and maintain the heat of the body, are present in vegetables, fruit, cereals and sugar; and all the necessary fat and oil in butter, cream, milk, etc.

Macaroni, spaghetti, and vermicelli are valuable foodstuffs made from wheat and rich in gluten. They are cheap and nutritious, but being deficient in fats should be combined with butter, cream or cheese.

Vegetables, either cooked or raw in the form of salads, supply mineral salts and vitamins.

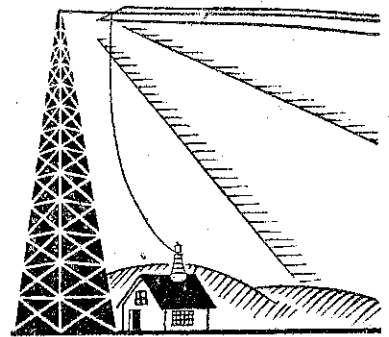
Eggs are a particularly valuable article of diet, since, like milk, they contain all the elements necessary for the support of the human body, and, moreover, in the right proportion; but their nutrition being so highly concentrated, they need to be combined with such starchy foods as bread or potatoes to obtain milk.

Fish is an animal food, next in importance to meat and poultry; less stimulating and nourishing but usually easier to digest.

Cheese is a very valuable food, so rich in protein that it may be used as a substitute for meat. One pound of cheese actually contains as much protein as two pounds of beef.

valent in fresh ones, and cook until mixture thickens slightly. Add 1 cup of cooked or canned peas, 1½ cups of boiled rice, 1 tablespoon of chopped parsley, salt and pepper. Put in greased baking dish, and sprinkle with grated cheese. Bake in oven at 400 degrees for 20 minutes. Peas or carrots can be used instead of peas.

Fruits are chiefly valuable for their sugar, acids and salts. They are cooling, refreshing and stimulating. They act as a tonic and assist in purifying the blood. Bananas, dates, figs, prunes and grapes are the most nutritious, being the richest in sugar. These who are obliged to exclude sugar as much as possible from their dietary may like to know that plums, peaches, apricots and raspberries contain the least. Apples, lemons and oranges supply potash salts, oranges and lemons being especially valued for the citric acid they contain.



Let US broadcast a word!

—we want every cook and every housewife to hear about a famous Chef's secret of light, fluffy scones, and dainty, golden-brown cakes.

It is simply: "Mix a few spoonfuls of ANCHOR SKIM MILK POWDER into every mixture you make." You'll marvel at the new lightness it gives to baking the increased food value—the rich flavour—and the longer period of freshness.

Ask your grocer for a trial tin TO-DAY!

Price 1/2 per Tin

Say "ANCHOR SKIM MILK POWDER, Please"

Write now for Free Recipe Folder to "Anchor," Box 814, Auckland.

Care of the Hair

Some Valuable Hints

GRAY or white hair can be lovely, but it is not always so. Indeed, it takes a lot of keeping beautiful. Where it is inclined to assume a yellowish tinge, a few drops of ammonia should be added to the shampoo, and a few drops of ordinary washing blue to the last rinsing water. Where the hair is becoming gray prematurely, electric vibratory massage will do much to restore its original colour, by stimulating the pigmentation cells.

If you are one of those who has always regretted having her locks shorn, I would emphatically say now is the time to let it grow. It can be gracefully waved and dressed to the shape of the head, the ends as they grow being caught up at the nape of the neck, and turned up or under. Should you not boast the loveliness of natural waves, electric curling irons will enable you to easily assume them.

For superfluous hair, if the growth is in any way profuse, a depilatory should be used, or it can be satisfactorily removed by electrolysis. Often, however, it is the soft down, which gave the lovely peach-like bloom to the skin, when young, now grown coarser, that is the trouble; here, a solution of peroxide of hydrogen, sponged on daily, will bleach, weaken and finally destroy the growth.

To sum up, above all, do not worry. Troubles do come, we know, but then a lot of those we worried about never did, and had they, how much better we should have faced them, with a calm faith that a way out would appear. Electricity has done much for the world since its wonderful discovery, and can do wonders for women and the home, if women will avail themselves of the opportunities it gives them to lighten their labours, brighten their lives, by the use of such labour-saving appliances as electric ranges, washing machines, cleaners, etc., which do away with so much domestic drudgery.

Saving the Eyes

WE have already spoken in passing of eyestrain caused by the need for glasses, but there is another form caused by working under unsuitable light; and when we say unsuitable, let it be remembered that eyestrain can be caused by too much glare, as well as by insufficient lighting.

Tired eyes should not be exposed to strong sunlight. They benefit from a daily bath of cold water, particularly one to which a little rose-water has been added. See that you get enough sleep, and if you are constantly engaged in close work, rest the eyes occasionally by removing your gaze from the work and looking right away as far into the distance as possible. If your view is restricted, imagine a distant scene, and so demonstrate the dominance of mind over matter.

Even the occasional use of alcohol militates against eye beauty, as it distends the tiny blood-vessels, and gives a streaky appearance to the white of the eye; while its habitual use causes it to assume an unbecoming yellowish tinge.

Trials in Tact

or

What Would You Do?

(Conducted by Savoir-Faire)

UNDER this heading, an every-day problem will be set week by week, and readers are invited to send in their solutions, for which marks will be awarded. Prizes are offered to those obtaining the most marks over a series of ten. First prize, £2/2/-; second prize, £1/1/-; and third prize, 10/6 for each series.

Competitors may send in their own problems for publication and solution and a prize of 10/6 will be given for the best one sent in during each series, and 5/- for each contributed problem used.

Problem No. 6.

Mr. A. and Mr. B. are neighbouring farmers. Mr. A. is continually imposing upon Mr. B. and taking advantage of his generosity at every turn. Despite Mrs. B.'s attempts to snub Mr. A., he refuses to take offence. Mr. B.'s nature prevents him from assisting Mrs. B. in her attempts to discourage Mr. A. Suggest any means of effecting Mrs. B.'s purpose.

Suggested by Nintz.
(Answers must be postmarked not later than March 13, 1930.)

Problem No. 7.

Mrs. A. and Mrs. B. have been close friends over a long period and Mrs. B. knows that Mrs. A.'s husband is devoting considerable attention to a Miss C. and has definite evidence that he secretly takes her for motor drives and also lavishes expensive presents on her. Miss C. occasionally visits Mrs. A.'s home. Mrs. A. has implicit trust in her husband's faithfulness and is totally ignorant of his secret attentions to Miss C.

Mrs. B. considers that she has a duty to perform to Mrs. A. and is thinking of mentioning the matter to her, but sincerely regrets the possibility of unhappiness entering Mrs. A.'s home. What course should Mrs. B. adopt?

Suggested by Mary.
(Answers must be postmarked not later than March 20, 1930.)
A non-de-plume may be used, but names and addresses must be sent. The same non-de-plume must be retained throughout the series. All replies must bear a postmark dated not later than the Thursday after the date of the journal in which the problem appears, and should be addressed to "Savoir-Faire," "Radio Record and Electric Home Journal," P.O. Box 1032, Wellington.

Savoir-Faire's decision must in every case be accepted as final.

Notes

Ginger: I greatly regret that your name was missed from the list of awards last week. Your solution earned, and you have been credited with, full marks, 5.

Kia Ora: You have been credited with full marks, 5, for your solution to Problem No. 3.

Solution to Problem No. 5.

Miss D.'s easiest course, and possibly the wisest one, would be to ignore the whole matter, but I am glad to see that few competitors suggest it, as she would be guilty in that case of actually condoning a very mean theft.

At the same time, Miss D. should be very careful not to actually accuse Miss B., for we are told that she is unscrupulous, and might therefore create a very unpleasant scene, in her chagrin at being detected. She might go so far as to say that she had also dropped a half-crown piece, in which case, it would only be Miss D.'s word against that of Miss B. I do not, however, judge those wrong who say that Miss B. should be informed politely that a mistake has been made, but I agree with "Priscilla," who says that the matter is really between Mr. A. and Miss B.

I think that Miss D. should say to Mr. A.: "Oh, Mr. A., have you recovered all the change that you dropped, or is this half-crown that has just been picked up a part of it?" and leave him to recover it for himself, or Miss B. to hand it to him.

Miss C. has in all innocence passed over the money she found, and I do not think she should be embarrassed by being drawn further into the matter. What embarrassment there must be should quite properly be shared by Mr. A. and Miss B.—by him for his carelessness, and by Miss B. for her dishonesty.

Marks have been awarded as follows:—A Trier, 4; Anon, 2; Apple-Pie Mary, 2; Azure, 0; Bonza, 0; Miss Rachel Baker, 3; Clara, 2; Duplex, 2; Deerfoot, 0; Equity, 2; Fiat Pax, 2; Frances, 3; Floorboard, 3; Miss Rhoda Green, 2; Grace, 2; Ginger, 3; Haven, 3; Irene, 2; Jean, Te Puke, 2; Miss N. Johnston, 3; Jonquil, 2; Kia Ora, 3; Kummel, 0; Listener-in, 3; Lucid, 0; Mrs. Mason, 5; Myra, 4; Mayflower, 3; Michael, 2; Natural, 3; Nomen, 2; Olivia, 3; Priscilla, 3; Pumpkin, 2; Onery, 0; Radex, 5; Radio, 4; Rosa, 3; Senga, 3; Seylla, 2; Summif, 0; Thames, 4; Tuner, 3; Topaz, 3; Undine, 0; Viola, 2; Verity, 4; V.L.A., 5; Wynward, 2; Weaver, 0; Mrs. E. W. Watson, 2; Xylonite, 2; Xerxes, 0; Yum-yum, 2; Zenobia, 0.

Poultry Appreciate Electric Light

MANY practical poultrymen are using electric light in their laying houses to maintain and increase egg production. It is usually concentrated on hens that are not to be kept as breeders. The purpose is to get as many eggs as possible, and to dispose of the birds as soon as they stop laying.

On a farm in Virginia, the poultry house was divided into two equal sections by a wire partition equipped with a canvas curtain to be rolled down at night. One section was wired for lights.

The flock was divided into two groups of 160 each. In a seven-day laying test made before the lights were turned on, the flock to be left in the lighted section laid an average of seven eggs less a day than the flock for the unlighted section.

The lights were turned on at 4.30 each morning during the test period, November 15 to March 31, and the hens in the lighted pen were kept at work about thirteen hours a day, as compared with about ten hours for the other birds. Both groups were fed alike, so that there was no extra cost for feeding.

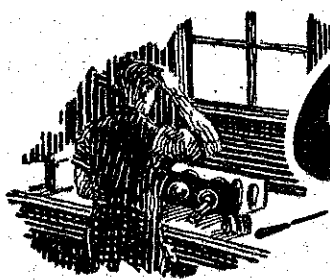
The birds in the lighted pen laid 13,409 eggs during the period, those in the unlighted pen only 9253 eggs. The lights therefore gave an increased production of 4156 eggs. At an average price of forty cents, the increase due to the lights, netted over £27, as the cost of current at 5d. per kilowatt hour was only just over 12/-.

Had the whole flock of 320 birds, been under light, and assuming the same rate of gain, the increased egg production would have netted over £56, or more than enough to pay the entire cost—45/10/- of connecting and wiring the whole of the farmstead, and that in a little over three months.

Architects Beware!

THE building of new homes proceeds apace, and reconstruction goes on always. It behoves, therefore, architects, electrical contractors and others interested in both the building and electrical trades, to acquaint themselves, and to see that their clients are acquainted, with the manifold advantages and conveniences that electricity offers. Many a householder has experienced chagrin, and cherished a lasting grudge against his architect or builder, at finding after he has settled into a new home, and the wiring installation has been completed, that his neighbour is in full enjoyment of some advantage of which he would have gladly availed himself, but of which he had never heard.

Architects, builders and contractors who leave their clients in ignorance of the electrical facilities at their disposal, are themselves obstacles to progress. Their duty it is to see that ample adequate wiring and points are installed for all purposes, such as radiators, ventilating fans, washing machines and refrigerators. A really progressive man will ensure that the service wires are sufficient to allow for an electric range and every other ap-



Questions and Answers



Double Grid Valves.

"BEGINNER" (Napier) asks if a double grid valve can be used in the audio stage of a two-valve Browning-Drake.

A.: It is not suitable for anything other than a single-valve receiver. This valve, although operating on very low plate voltage, and giving remarkable amplification, cannot handle loud signals.

2. Where can I get a circuit of the set?

A.: It has been published in the "Radio Listeners' Guide" as the 4-valve B-D. Omit the last two stages.

3. Would this set work an exponential horn with any satisfaction on the local station?

A.: It is very doubtful. In all probability you would need an audio stage. A double-grid valve of course could not be used. It would overload too readily.

4. Is the double-grid valve equal in volume, tone, etc., to an ordinary valve with 90 volts on the plate, and is its life as long?

A.: The volume would be approximately the same, but the tone would be thinned in the lower registers. The life is equal to that of any other valve.

Can Phones be Used?

QUITE a few stations come in, not quite strongly enough for me to get the call-sign. Can I use head phones? The set is a 3-valve screen grid factory-built,—"T.T." (Dalefield).

A.: If it is an A.C. set, the ripple would probably be too strong for use with phones. It is doubtful to give any definite decision. Your best plan would be to borrow a pair of phones and try it out for yourself. You could not do any harm, providing the positive terminal of the phones is connected to the positive terminal of the set.

mineral of the phones is connected to the positive terminal of the set.

Remote Control.

I USE my loudspeaker 30 feet away from my set, and wish to switch off my set from this point. How can this be done? asks "H.M.D." (Palmerston North).

A.: Get a filament break jack and connect the A+ by means of a 30ft. wire to one of the filament springs, and take the other spring to the positive terminal of your set. Break all other connections between A+ and the set. Upon pulling out the plug the set will be cut off automatically. Keep the two wires close together and use the coarsest wire possible; 18 D.C.C. would be excellent; twin lightning flex would also be good.

Round-the-World Two.

I AM building the Round-the-World Two and wish to know the following, asks "S.P." (Wellington).

1. Would a .00025 variable condenser do for a .0002?

A.: Yes, but it will alter your tuning slightly. It will be better if you can put a .001 condenser in series.

2. Which is the primary and which is the secondary coil?

A.: There is no primary; the set is one of the tapped secondary class.

3. Is the amperite necessary?

A.: If using five-volt valves.

4. Is the neutralisation condenser necessary?

A.: It would hardly have been put in if it were not. Its function is to sharpen tuning.

5. Would two-volt valves be suitable? —Yes, but 4, 5, and 6 are better.

Reception Weakening.

"L.H.S. (Kaikohe)."—I have found that I can get no other station except Wellington, but that at very good strength. The agent has inspected the set and says that if we can get Wellington we must be able to get other stations, and that their weakness is due probably to atmospheric conditions.

A.: It is most difficult to advise you differently from a professional man who has seen your set. As you state the problem, it appears as if there is something wrong, probably the valves are weakening. We should advise you to have them tested. If they are in order, we should recommend that your set be overhauled by a competent service man. It is possible that a by-pass condenser has broken down.

Shorting Valves.

IS there any danger of burning out valves should a short-circuit occur between the two flexible leads in the speaker? asks "Aerial" (Temuka).

A.: No.

2. Would a shield of thin zinc be sufficient to screen a frame aerial from the induction from a nearby power line?—No.

Volt-Meter Reading from an Eliminator.

P.J.W. (Dunedin) asks if he should get a voltmeter reading between the negative and any of the positive tappings in the B eliminator.—Yes, providing the meter has a high enough resistance.

2. How can I get the correct voltage on the plate of the detector valve when using a B eliminator?

A.: You will have to use a very sensitive meter with a higher resistance (1000 ohms per volt). The negative terminal of the meter is connected with B— and the positive terminal to the plate of the detector socket.

3. How can I test the winding of an ordinary transformer.

A.: Connect B+ of the transformer to a + positive tapping of the eliminator and the negative of the meter to the negative of the eliminator. Touch the positive terminal of the meter to the "P" terminal of the transformer, and you should get a reading slightly smaller than that given from the positive to negative of the eliminator. To test the secondary, turn the transformer round and make the connections in the same way. The voltage drop under these conditions will be slightly greater than for the primary.

I have made up a 4-valve screen-grid receiver and can get nothing on the first three valves, and only a local station on the fourth.

A.: You need far more turns on the secondary coils, and it seems that there are other faults in your receiver which could only be checked up by an examination. Get an experienced man to go over your circuit with you.

Short-wave Receiver.

YOU will find enclosed the circuit diagram of a short-wave set. Is it suitable, and can you give me all details for construction? writes "A.W." (Port Chalmers).

A.: This is a tall order and would take some time. We cannot undertake to give layouts. Build up "Round the World" Two, if necessary leaving off the audio valve. The problem of winding coils on valve base formers was dealt with in last year's "Radio Listeners' Guide."

Overloading.

HOW can I prevent overloading? writes "J.K." (Upper Hutt).

A.: There are very many methods, other than removing the aerial. The best, no doubt, is to build a local station single-valve receiver, of the anode-bend type described by "Megohm" some time ago and connect this with the audio amplifier of the receiver. Crystal detector, likewise, can be coupled up with your amplifier, for the aerial terminal can be taken in to the grid terminal of any of the radio valves or detector. For those who dabble in construction, we should advise biasing the radio valves.

Circuit Wanted.

"ANXIOUS" (Rongomai) asks for details of a 4-valve all-electric screen-grid short-wave receiver using valve base plug in coils.

A.: In the 1930 Listeners' Guide we are bringing out a set of this description using only three valves, which we think is quite adequate for all purposes. An extra audio stage could of course be added. The guide should be out in about three months, and until then we cannot give any details.

Accumulator Problem.

WHEN my accumulator gets below 1200 it ceases to function. I charge it to 1250 or 1300, but it soon runs down. The plates are well covered with the liquid, states "R.E.H." (Kohu Kohu).

1. What would be the correct rate to charge the battery?

A.: Charge at about 3 amps. to 1250 or 1300 S.G. Do not let the battery get as low as 1200.

2. What would be the effect of a too high rate of charging?

A.: The plates will suffer, and shorten the life of the accumulator.

3. What would be the effect of charging after the reading is 1300?

We are offering several of our Radio Lines at Special Prices until Stock-taking on March 25th.

Regentone Trickle Chargers	each	£2	0	0
Willard A and B Eliminators	from	£7	5	0
Willard B Eliminators	from	£5	5	0
Willard A and B Chargers	from	£3	0	0
A.J.S. Senoir Horn Speakers	each	£3	0	0
A.J.S. Cone Speakers	each	£2	10	0
Baldwin Jnr. Horn Speakers	each	£1	10	0
Magnavox 6-volt. D.C. or 110-volt. D.C. Speakers	each	£5	10	0

Other Lines are also offered. Write or call for List.

THOS. BALLINGER & CO., Ltd.
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If You are having Trouble, why not call in—

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And have your Set properly adjusted. You will save time and money, and be assured of perfect satisfaction if you consult—

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All Calls made Promptly—

Satisfaction Guaranteed.

HOW'S THIS!

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

JOHNSON'S WIRELESS SCHOOL
BRANDON STREET, WELLINGTON.

A.: The accumulator will froth badly, but if the rate of charging is low enough, no damage will result. Have you tried washing out the battery with pure rain water? Quite likely sediment has collected in the bottom and is short-circuiting some of the plates.

Screen-grid Short-wave Receiver.

I WISH to build a S.G. S.W. receiver, and have a .000125 condenser and another with two moving plates, and three fixed. Would the latter be about the same capacity?—"F.H." (Huntly).

A.: It is difficult to state the capacity of this condenser as it very much depends on the size of the plates. If the two look about the same, then it can be taken for all practical purposes that they are.

2. What number of turns and sized wire are needed for valve base coils with .000125 condenser, using .00025 for reaction.

A.: The sizes given in last year's "Radio Listeners' Guide" will be approximately correct. Allow a turn or two extra on the reaction coil for the smaller capacity.

Internal Short.

"B.C.A." (Alexandra) states that he has a popular three-valve set, which has given satisfaction, until now it appears that when the filament current is turned fully on signals fade away. The fuse between the A and B has blown out and been replaced by wire. He now finds that the set has stopped working altogether.

A.: Have you tried the detector and audio by placing your finger on the grid-leak? You should get a loud squawk if these are functioning. It appears that the screen grid valve has shorted internally; the elements were evidently very close to one another and when the electrons screen reached full strength when the filament was turned full on, it was so close to the plate or screening grid that this latter became clouded and the valve ceased to function. It now appears that the elements are touching. Give the valve a tap and see if this makes any difference. The fuse between the "A" and "B" should have been replaced by a very fine strip of good tinfoil. This makes splendid fuse, and safeguards the valves. The valves may have been blown out, owing to the absence of the fuse.

A Noisy Set.

I IMMEDIATELY I switch on my set there is a surging or grating noise such as would be caused by a loose valve. I have had a new detector and tried a new valve in each of the 222 sockets, "M.B.S." (Palmerston North).

A.: Your question is rather too meagre to permit of full explanation. Did the set always make the noise? Why did you get a new detector? Have you seen the local agent? Unless you supply this information, we cannot help you.

Resistances and Voltage Drop.

I PROPOSE changing the valves in my receiver, and wish to know the effects on the readjustments. The 7-valves each taking .1 of an amp, are wired in series, and are controlled by a 2-ohm resistance. They would require 7/10ths amp. Would the 3-ohm resistance still be all right?

A.: You have made a mistake somewhere. If the seven valves are wired in series the total consumption will be only .1 of an amp, whereas the total voltage will be 42.

2. If I leave the six-volt valve wired as at present, would a 20-ohm rheostat be suitable on the first valve, wired separately?—Yes.

What valve resistance should I use for the other six in series?—They would have to have 3/5ths of an amp, and I can't get this value in resistances anywhere, asks "Valve," Hastings.

A.: This question is most confusing. You state the six are in series, and yet require 3/5 of an amp, and state that you cannot get this value in resistance. We have presumed that they are wired in parallel, which is the normal method of wiring, in which case a 3-ohm resistance

"Buckled" Battery Plates

AN accumulator that has been allowed to sulphate to any extent is also extremely liable to a further dis-ablement known as "buckling." Taken by itself, sulphating, if it has not gone too far, is usually amenable to a little persuasive treatment, but when this doubly complicated stage has set in the case becomes a rather hopeless one, and it usually means that the positive plates at least—if not the entire cell itself—will have to be "scraped." Short-circuits are set up, the paste falls out of the grids.

Where buckling has set in to any appreciable degree it is advocated that the positive plates are at once replaced

CONSTRUCTORS—ATTENTION!

A comprehensive list of constructional items to be published in the "Radio Record and Electric Home Journal" during the coming season has been arranged. The articles will cover crystal, battery and A.C. sets, as well as numerous accessories. The following will appear in the course of the next few weeks:—

Advice on erecting an aerial (next week).

A "B" accumulator.

A power amplifier using resistance capacity coupled stages with push-pull in the last stage.

House wiring for speakers and phones.

A dynamic speaker.

ed by others, or else that the affected cell or cells be put out of service altogether. But where the sulphating is unaccompanied by buckling, or where the buckling is only slight, matters may be somewhat remedied.

The faulty cell should be charged at approximately half its normal rate. A sulphated cell placed on charge at normal rate almost inevitably buckles, so great care should be taken in this respect. Once on charge, the restoration of the cell to a healthy life is then very largely a mere matter of time. It is found that the electrolytic action of the charging current, which may be gradually increased as the treatment proceeds, slowly disintegrates the white, scaly deposits, until at length, after persistent application, it gradually disappears altogether.

On no account should current be drawn from the cell during this time, nor is it wise to stop or interrupt the charging current, unless perhaps it is to empty out the old acid once or twice and fill up again with new of correct specific gravity.

would be ample. You will probably have difficulty in securing a resistance of this value, so we advise you to get two 6-ohm rheostats and wire them in parallel. You can get these latter from Harringtons (Wellington), who are selling them off at present. You will have to be quick, however, as they do not propose to carry a stock, as they are rapidly going out of date.

Mullard
THE MASTER VALVE

The only Valve with the wonderful P.M. Filament. Gives longer life — more power — greater volume.

RADIO DIRECTORY

What to Buy and Where

CITIES

- AERIAL MASTS** Domestic Radio Co., Ltd.,
300 Queen Street, Auckland.
- ALTONA & HAMMARLUND-ROBERTS SETS.** Johns, Ltd.
Chancery Street, Auckland.
- AMPLION LOUDSPEAKERS** . All Radio Dealers.
- BURGESS RADIO BATTERIES,** All Radio Dealers.
- CROSLEY RADIO RECEIVERS** G. G. Macquarrie, Ltd.,
120 Willis Street, Wellington.
- CROSLEY RADIO** Abel, Smeeton, Ltd. Rep.: A. Temple
James Street, Whangarei.
- CROSLEY RADIO** Abel, Smeeton, Ltd.,
27-29 Customs St. E., Auckland.
- EMMCO RADIO PRODUCTS** Johns, Ltd.,
Chancery St., Auckland.
- EMMCO RADIO PRODUCTS** Thos. Ballinger & Co., Ltd.,
Victoria St., Wellington.
- EMMCO RADIO PRODUCTS** L. B. Scott, Ltd.,
Worcester St., Christchurch.
- KING RADIO RECEIVERS** ... F. J. W. Fear & Co.,
63 Willis Street, Wellington.
- MAJESTIC RADIO RECEIVERS** Kirkcaldie & Stains,
Chief Wellington Agents, Lambton Quay.
- MULLARD VALVES** All Radio Dealers.
- PILOT 1930 PARTS AND KITS, ETC.** Abel, Smeeton, Ltd.,
27-29 Customs Street East, Auckland.
- PILOT 1930 PARTS—PILOT SUPER WASP KITS, GILFILLAN, KELLOGG and AT-WATER KENT SETS** Harrington's, N.Z., Ltd.,
138-140 Queen St., Auckland.
40-42 Willis St., Wellington.
- RADIOLA RECEIVERS** and Farmers' Trading Co., Ltd.,
Expert Radiola Service. Hobson Street, Auckland.

COUNTRY TOWNS

- CROSLEY RADIO** J. C. Davidson,
Main Street, Pahiataua.
- CROSLEY SETS** Abel, Smeeton, Ltd. Rep.: C. Russell,
409 Devon Street, New Plymouth.
- CROSLEY RADIO** D. A. Morrison & Co.,
Victoria Avenue, Wanganui.
- MAJESTIC, ATWATER-KENT AND RADIOLA ELECTRIC SETS** Radio House, Hamilton.
G. S. Anchor, Manager.
- PHILIPS VALVES AND APPARATUS** All Good Radio Dealers.

Causes and Cure of Oscillation

A Concise Account of the Why and Wherefore of the Squeals that Kill Radio Reception



EVERYONE who has had any experience with a radio receiver, either home-made or factory-built, will have some definite idea as to what is meant by oscillation. The constructor will be far more interested in this term and what it means than is the owner of the commercial receiver. These latter sets are now built so carefully that uncontrollable oscillation is a thing of the past. There are, however, a large number of receivers, especially those of the older type, that give trouble because of this cause. In dealing with this common trouble, we must take into account not only the home-built set, but this class of factory-built receivers. Owners of the older sets will find that there is a decided tendency to howling and squealing when tuning in to stations on the lower wave-lengths. Those who own a home-built or other regeneration using set, will know that

when the regeneration coil or condenser is advanced beyond a certain point, loud whistles and screams emanate from the loudspeaker. This is oscillation, or feed-back. It is caused through a certain amount of energy from the plate of a valve being fed back into the grid circuit and again amplified by the valve.

When this is controlled in the proper manner, the signal strength can be increased greatly. The power added to the input side overcomes more and more the resistance of the grid circuit. It is possible to feed more than enough of the output power back into the input grid side to more than overcome the resistance of the grid circuit, and when this happens the set squeals, and not only mars the reception of the listener but also that of his neighbours. A little regeneration will not spoil the tone, but excess causes distortion.

How Oscillation is Affected.

THE tendency to oscillate increases as the frequency increases or as the wavelength decreases, other things remaining the same. A receiver may deliver very weak signals on the lower frequencies, but can be very sensitive at the higher. This is very frequently seen in the commercial receiver, which is built to oscillate just above the highest frequency to be received, and as this is approached the set becomes more and more sensitive.

Oscillation may take place in the radio-frequency amplifier, the detector, and the audio-frequency amplifier. In a receiver embodying each of these stages the greatest tendency to oscillate is in the second radio-frequency valve and those R.F. valves following it. The next greatest tendency towards oscillation is found in the detector circuit, and, last of all, in the audio.

As a rule, the tendency towards oscillation is increased by low resistance, that is, by good design in the grid circuits. It is also increased by using large tuning coils with small condensers. We might summarise the factors controlling oscillation as follows:—

Tendency towards oscillation is increased by—

Higher frequencies or lower wave-lengths.

Additional radio stages.

Low resistance, good design.

Large tuning coils and small condensers.

Regeneration coil too large.

Loose coupling between coils.

Value of grid leak too high.

Loose coupling in the aerial circuit.

Normal filament voltage.

High plate voltage, using a common "B" battery or power unit.

The tendency towards free oscillation is decreased by the converse of these.

Oscillation Control.

OSCILLATION may be controlled by four principal methods.

1. Eliminate the ways in which coupling may take place from coil to coil. This may be either inductive or capacitive. We shall return to this point.

2. Using a second feed-back which is opposite in phase to the first feed-back, and so cancels it out. This is the bridge method.

3. Reducing the power either in the grid circuit or in the plate circuit.

4. Introduce losses, such as resistances. This latter does not only mean resistances formed by length of resistance wire, but high-frequency resistance or any loss that acts as an effective resistance.

Unwanted feed-back is best tackled by first determining where in the receiver it is taking place, and then determine the method from this.

Resistance feed-backs where energy is fed from one circuit to another through intervening resistances such as

those in the voltage divider of a power pack, a common battery, or grid bias for two or more audio valves taken from a tapped resistance may be overcome by using by-pass condensers in the plate and grid circuits, thus shortening the effective high-frequency path. Plate by-pass condensers are inserted between Bx or filament negative, or across the "B" battery. Sometimes, a choke has to be inserted in the R.F. plate leads on the power pack side of the junction of the by-pass condenser, which may vary in capacity from .005 up to .01 mfd. for the radio valve. The capacity for the audio and detector valves should be 1 mfd. A separate by-pass condenser must be used on each stage or valve of the receiver. The grid condenser is placed in the circuit between the grid return and the filament positive. Avoid common grid returns to a rheostat, separating them by grid condensers as indicated.

Inductive Feed-back.—Although there might be no connection between one circuit and another, yet radio frequency current will feed back through the ether, and when two radio frequency coils are close to one another and have their cores parallel, the maximum amount of feed-back will take place. In order to overcome this, a very large amount of damping must be introduced or the amount of feed-back lessened by mechanical means. This is best done by arranging the coils so that the field from one core does not touch the field of the other in such a way as to cause howling. The coils should be at right angles, or at an angle of 35 degrees. This latter is used in the neutrodyne. The coils are frequently placed far apart—this aspect has been dealt with by "Cathode."

Another way in which the inductive feed-back takes place in poorly designed receivers is through closed loops in the wiring. A closed loop is formed whenever the wire on the positive side of the circuit is run a little distance from the wire for the negative side.

This applies to all filament, plate grid circuits, both in and outside the receiver itself. It is very easy to eliminate this type of feed back by bunching or cabling the battery wires. Plate and grid wires, however, must be kept short, as nearly as possible at right angles to one another, well above the baseboard and clear of the filament wiring. A much prettier job can be made by right-angling all the leads, but it is better to sacrifice looks for efficiency and take grid and plate currents by the shortest possible paths. It is better to make the battery leads long and cable them than to make them short and have them running by themselves. Remember the rule in respect of filament wiring is the exact opposite to that for plate and grid wiring.

A method of preventing feed-back of the inductive type which is now becoming very popular is to shield the R.F. coils; in fact, some of the latest models of receivers shield everything.

(Concluded on page 32.)

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Short-wave Wireless on American Aero-Planes.

EUROPEAN commercial aircraft generally use a wave-length of about 900 metres for ordinary wireless communication, but in the United States many of the machines operated by the principal American airways make extensive use of the short waves below 100 metres.

The Boeing Air Transport machines, for instance, are equipped for radio-telephony on wave-lengths of 53.7 to 71.6 metres. These transmitters have been allotted call-signs within the series, KHBA-KHBV. Similarly, the Western Air Express 'planes, have sets working on 46.3 metres in I.C.W. with call-signs, KHCA-KHCK.

The aircraft operated by the Pan-American Airways and the Suburban Air Lines of New York are equipped for transmission in C.W., I.C.W., and radio telephony on 72.7 metres and 97.5 metres, in addition to the usual aviation frequencies within the longer wave-bands. The call-signs allotted to these stations are contained in the series, KHAA-KHAY and KHFA-KHFF.

It will be noticed that these call-signs in use at present are four-letter combinations, and are therefore exceptions to the rule of five-letter call-signs, which prevail in respect of civil aircraft of most other countries.

W2XE, Atlantic Broadcasting Company, New York.

ALL the programmes originating over the Columbia system in America are rebroadcast over W2XE, the short-wave station of WABC, New York, operating on 49.02 metres.

New Stimulus to Empire Broadcasting.

THE following is from a recent issue of "Wireless Word" (England):—"How much longer is 5SW to be known as the experimental short-wave transmitter? Possibly the project for a permanent Empire broadcasting station will receive fresh impetus on January 21, when the speech of His Majesty the King at the International Naval Disarmament Conference will be sent out from Chelmsford primarily for reception throughout the Empire.

The B.B.C. can, I think, be spared any further criticism in the matter of Empire broadcasting, as the question is now in the hands of the Colonial Office. I understand that the Dominions and colonies are now being canvassed for contributions towards defraying the expenses of a permanent service. His Majesty's speech will thus come at an appropriate juncture; the Dominions are sure to make a determined effort to hear it (as well as the speeches of the Dominion representatives on the Conference), and the degree to which 5SW can make itself heard on this occasion may directly affect the financial enthusiasm of its audience."

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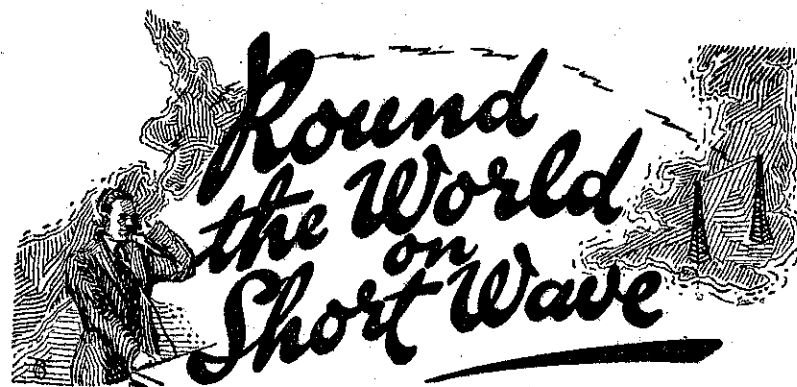
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Reception during Week ending March 8, 1930.

CONDITIONS are improving for early morning reception of European short-wave stations, and it is hoped that some of these elusive strangers heard at about 6 a.m. will be identified as their signals increase in strength so as to be readable.

RA97, Siberia, 70 metres, has been received as usual at good strength, with plenty of static. On tuning them in on Wednesday at 8.50 p.m., Soviet news was being broadcast in English, received at full speaker strength, but static spoilt readability. A sextet from the opera "Lucia" was transmitted from the studio during an interval from the news items. This was followed by the doings of the Communist Party in various countries.

W9XF, Chicago, 49.83 metres carried on until 8 p.m. on Sunday. Since then I only heard them once—on Wednesday; they are evidently closing down earlier now.

W3XAL, New Jersey, 49.7 metres, was only heard on Sunday for a short time, being only R2 at 5.15 p.m.

W2XAF, Schenectady, 31.4 metres.—A programme of dance music from the crystal room, De Witzler Hotel, Albany, came in at R9 from 4 p.m. till 5 p.m. on Sunday. Volume was not quite as good on Saturday.

PCJ, Holland, 31.4 metres.—From 6 a.m. till 7.30 a.m. on Friday and Saturday PCJ was received at very good volume. On Saturday afternoon, signals were just audible at 2.30 p.m., increasing to R8 by 4 p.m., and remaining at that till 6 p.m., when the special New Zealand and Australian programme concluded with the striking of Big Ben. (Their Big Ben must have been the studio clock, at it was too fast in the chimes, and striking for the Big Ben.)

Zeessen, Germany, 31.38 metres, was heard each morning at an average volume of R8. On Wednesday, by the way of a change, some humorous songs with patter were heard. This was relayed from a hall where the audience were thoroughly enjoying the jokes judging by the way they laughed and applauded.

2ME, Sydney, 28.5 metres, continue to test with GBX, England.

GBX, England, 27.5 metres, vary considerably in the clarity of their signals when working duplex with 2ME. On Friday morning at 5.45 a.m. they were very good, the Englishman's voice was clear, but, strange to relate, the speaker from 2ME could be heard through GBX with even better clarity than the voice direct from England. This was probably accounted for by the Australian having a better broadcasting voice than the Englishman.

KZRM, Manila, Philippine Islands, 26 metres, appears to have settled down to 26 metres again, as this is the only wave-length I have heard them on since last writing. Reception from 10 p.m. is not quite so good now as a few weeks ago.

G5SW, Chelmsford, England, 25.53 metres, is improving quite a lot now at 7 a.m. Volume when opening at that time is about R2, readability being quite good. Rebecca West gave a talk on new novels on Tuesday morning. On Saturday morning "Literary Work" was the

subject of a talk in a series of talks on "Careers for Boys and Girls."

KDKA, Pittsburgh, 25.4 and 48.86 metres, were transmitting on two wave-lengths on Sunday. Volume was poor on each.

W6XN, Oakland, California, 23.35 metres, were received quite well on Sunday, Tuesday and Friday. Volume is best about 5 till 6 p.m.

W2XAD, Schenectady, 19.5 metres, was very weak on Sunday, about R3 at its best.

POK, Holland, 16.3 metres, at 8.30 p.m. on Tuesday were received at R8-9 with gramophone records, and were heard at 9.45 p.m. on Friday working duplex with PLE, Java.

PLE, Java, 15.74 metres, were calling Amsterdam and playing records at 9.20 p.m. on Tuesday. Strength R8. They were heard again on Friday at the same time.

PH1, Holland, 16.88 metres.—This station usually works at times not suitable for reception in New Zealand. They conducted a twelve-hour test on March 4 from 12 till 24 G.M.T. (midnight to noon on Wednesday here). Signals were R6 at 5 a.m., when records were broadcast; volume decreased to R3 by 6.30 a.m. Again on Thursday evening they were tuned in at 9.15 p.m., when strength was R7. Reception was excellent. Announcements were made in Dutch and English.

DGW, Nauen, 14.83 metres, was heard at 9.30 p.m. on Tuesday, R5, but very gushy.

PMB, Java, 14.5 metres, were working duplex at 9.45 p.m. on Friday; R5.

Unidentified Stations.

THE list under this heading is growing, but with the approach of winter and better receiving conditions it is hoped that most of them will not remain unidentified much longer.

45.8 metres (about), Friday, 6.10 a.m., duplex in a very deep foreign voice; R4.

41.6 metres (about).—Every morning about 6 a.m. Friday the best, being R7, with talk and music; closed this morning at 6.20 a.m. without a call being heard.

31.5 metres (about).—A German is heard talking on this wavelength from about 6 a.m. nearly every morning.

31.3 metres (about).—Another station heard every morning. On Saturday the talk was readable, being English at R4 at 5.50 a.m., increasing to R6 by 6.30 a.m., when static becomes bad. All that was heard were the announcements as to what the next item or items were to be, but without any call being given. Perhaps some other listener heard a call when I was listening to other stations. If so, I shall be glad to know who the stranger is. The last item announced while I was listening was just after 7 a.m., "On with the Motley."

25.2 metres (about), 10.30 p.m., Friday, at R9, all talk in French, sounded like duplex.

23.6 metres (about), 9 p.m., Sunday, at R2-3, a foreigner talking.

Short-wave Notes

I HAVE just received word from James Richardson and Sons, Ltd., that their short-wave station, CJRA, is temporarily off the air, while their experimental station, VE9CL, Winnipeg, is being tested on a wave-length of 49 metres. Reports on reception of the 49-metre wave will be greatly appreciated. Address to James Richardson and Sons, Ltd., 1038 Grain Exchange Buildings, Broadcasting Department, Winnipeg, Canada. The following is a short description of Radio Station CJRW: Situated three miles west of the boundary between the provinces of Manitoba and Saskatchewan, and far remote from large centres of population, the station has been designed to provide reliable service to the prairie listeners while interfering as little as possible with those who desire alternative entertainment. The 1000-watt transmitter was designed and built in Canada by the Canadian Marconi Company. To avoid the possibility of interruptions through breakdown of the external source of power supply, a gas engine and generator are maintained at the station in constant readiness to be called into action. The aerial towers are eighty-five feet in height, are surmounted with powerful electric lights, and with meteorological instruments. Private wires, specially designed and built for the purpose, connect the station with the studio at Winnipeg, 200 miles east.—H. F. Adcock (Masterton).

International Short-wave Tests

ON Thursday, March 6, from 7 p.m. onwards, transmission from London on short-wave was very clear, speech from 2ME (Sydney), via London, being heard at good strength in Lyall Bay, Wellington. Stations GBX and GBX, London, were testing, and to locate a heterodyne whistle, which interfered with 2ME, GBX was stopped for a few minutes, and London spoke through GBX. 2ME was requested to check up their frequency. Speech from 2ME, Sydney, and London was heard simultaneously from the London station; Mr. Farmer's voice from Amalgamated Wireless (Australia) Ltd., Sydney, having traversed well over 20,000 miles. These two English stations must not be confused with G5SW, Chelmsford, England, which station broadcasts special functions.—R. Leslie Jones (Wellington).

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Short-wave Notes

Transmitting Stations

(Continued from page 30.)

This subject has been very fully dealt with previously.

Capacity Feed-back: This type of feedback is the most troublesome because it is the hardest to locate and remedy. There are capacities inside the valve between the filament, plate and grid, also between the windings of transformer and all the coils. At ordinary broadcast frequencies some of these capacities form a path almost as easy as a piece of metal for the high frequencies to follow. We could not hope to cover the cause and effects of different types of capacitive feed-back in one article, so we shall merely summarise the methods in which this is overcome.

Use external balancing feed-backs or valves. This is accomplished by the designer of the circuit and is known as neutralisation.

Place coils far apart.

Use coils of small physical dimensions.

Do not run plate and grid wires parallel.

Make plate and grid wires short.

Place tuning condensers well apart.

Make transformers with little capacitive coupling between primary and secondary windings, e.g. by keeping the primary within a small compass.

Do not use excessively close inductive coupling with radio frequency transformers. This aspect has been dealt with by "Cathode" in his article on resonance.

Audio feed-back howling is often caused by feed-backs from the audio frequency stages. Such trouble may usually be avoided by using short wiring in the audio stages, by using a detector plate by-pass condenser (.002 mfd.) and a radio frequency choke, by keeping the speaker cords and leads away from the radio frequency stages, by not using run-down B or A batteries, by proper plate and grid circuit by-passes in the audio amplifier, and by keeping audio transformers at right angles. These were fully described when we were considering radio frequency oscillation.

Audio frequency oscillation can be distinguished from radio and detector oscillation by its continual howling no matter how the tuning is altered. Motor-boating is another form of A.F. oscillation, but its treatment would require a separate article.

We have now skimmed over the surface of the cause and cure of oscillation in the radio receiver. No attempt has been made to go into the subject deeply, as it would require very much more

Auckland Amateurs

(By "Call Up.")

THERE are approximately forty licensed amateur transmitters in Auckland city and suburbs, and some of these stations have put up very excellent performances. The N.Z. Amateur Radio Transmitters' Association has about seventy members in Auckland, and the local branch has a club room and conducts regular lectures. The next series of lectures are to begin in about a month's time and are expected to be fortnightly. Mr. E. Whitely is the secretary.

The most interesting amateur transmitting station in Auckland, in the minds of the technical experts at any rate, is the Auckland University College experimental station, ZLIX1, which is operated under the supervision of Professor Burbidge. Various types of transmitting sets are used with different wavelengths. The output, too, is also very variable. The station takes its part in the regular university courses and provides students with training in radio measurements, induction capacity, frequency and resistance.

One or two students particularly interested in radio work have continued experimenting with the station after their regular courses were completed, in most cases using this further research for their Honours M.Sc. thesis.

In 1921 Mr. E. H. Green, now in the laboratory of the Post and Telegraph Department, conducted a great deal of experimenting with the station, and visited Fanning Island on the cable ship Iris in pursuit of his research work. He was really the first man to discover indications of what is known as skip distance, but he did not publish his results.

Another student to conduct interesting experimental work was Mr. G. H. Munro, who made research into sunrise and sunset errors in distance finding, later publishing a full account of his work. Mr. Munro is now with the Radio Research Board in Australia.

Experiments about to be started this year will be research in directional

space than we have at our disposal, but it is hoped that those who have noisy receivers will be able, in some little measure, to obtain better results by following the few simple instructions we have given herewith.

work in atmospheric, the object being to co-relate atmospheric with weather disturbances. This research will be conducted by Mr. R. Lyons, and will be financed partly by grants from the Department of Scientific and Industrial Research.

Transmitting Stations.

FIVE years ago Mr. H. B. M. Arthur began to operate his station ZLIAN, and he has since put up a very fine record. It was the first New Zealand station to work overseas on 10 metres, and, in fact, the first to experiment with this wavelength. In September last Mr. Arthur built a new transmitter with a Vallauri push-pull circuit, and this has proved the most satisfactory ever used on short wavelengths, especially on 10 and 20 metres. The majority of the local transmitters are now installing it. Since putting his set on the air, Mr. Arthur has worked 200 foreign stations, including 70 European, and 48 different countries.



Dictator Stalin, the originator of the "Five-Yearly Plan" for the betterment of Soviet Russia. According to a recent broadcast from Siberia of a public meeting at Kharbarovsk, the Dictator's schemes are not meeting with the success anticipated.

The station has worked on different wavelengths—80, 40, 20, and 10—but is now concentrating on 10, on which it has worked Australia several times, and on which it is hoped to work U.S.A. during the next two months.

Mr. Arthur was formerly with Superadio, Ltd., Auckland, and is now managing the Radio Equipment Co., in that city. He is secretary of the Auckland Radio Society and has for some time edited "Break In," the official organ of the N.Z.A.R.T.A., of which he was formerly general secretary.

ZLIFQ

A VERY well-known Auckland amateur transmitter is Mr. T. Clarkson, whose call-sign is ZLIFQ. Mr. Clarkson has been operating in Auckland on this call since 1925, and previous to that was in Hastings, where he was known as 2AR. He says that he does little experimenting now, but always keeps his set in good order and is on the air fairly frequently. He recently installed the popular push-pull circuit, and his input is between 50 and 60 watts. The transmitter is equipped

with interchangeable coils for 80, 40, and 20 metres. ZLIFQ has been heard nearly all over the world as a large stack of cards on Mr. Clarkson's desk testifies. As far back as March, 1927, he was heard by FO-9SR, Southern Rhodesia. On tuning up his set a few weeks ago he worked all continents within two days. Mr. Clarkson is Dominion president of the N.Z.A.R.T.A., and is employed in the Post and Telegraph Department, where he is engaged in technical wireless work.

ZLIFW

STATION ZLIFW, operated by Mr.

E. Whitely, has been on the air for two years, first transmitting in March, 1928. Communication has been established with 42 different countries, and as the aerial is only 20 feet high, this speaks well for the circuit, which is another Vallauri push-pull. The input is between 70 and 90 watts. This station is shortly to install a crystal-controlled transmitter.

Radio in 1913

"Telephony without Wires"

A VERY interesting clipping from a magazine, dated June, 1913, has been forwarded to us by a correspondent. The article, which incidentally is headed "Telephony without Wires," discusses the possibilities of wireless telephony over moderate distances, and gives a brief account of some experiments conducted along these lines. After reading this article, it is amazing to think that only thirteen years ago people considered the maintaining of a conversation by radio over a distance of a mere twenty-five miles, a marvellous achievement. What a contrast to the recent two-way radio telephony tests between New York and Sydney! The article in question is given below:—

ONE of the most remarkable experiments in the science of voice reproduction yet made has recently been brought to public notice by Mr. H. Grindell Matthews, the young inventor of the aeroplane system of wireless telephony.

Mr. Matthews stationed himself in a closed strongroom in a large building. The walls of the strong-room consisted of nine inches of armour steel, nine inches of fire brick, and six feet of concrete, but, notwithstanding this, Mr. Matthews easily carried on conversation with another operator in a room at the other end of the building! At the time of writing he proposes to carry out another test of his apparatus by an endeavour to talk through five miles of rock, between Chepstow and Tintern.

By means of man-lifting kites, Mr. Matthews hopes to raise his receiving aerials sufficiently high to enable him to carry a conversation between Chepstow and Cardiff, a distance of over twenty-five miles! Mr. Matthews explains that "the vibrations produced by his electrical apparatus are not in the form of Hertzian waves, like Marconi's wireless telegraphy, but that the discharges are of such frequency that there are no appreciable breaks between."



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Radio Round the World

A WIRELESS station reputed to be the most powerful in Europe was opened recently at San Palomba, a suburb of Rome. The broadcast programmes, which will comprise concerts, lectures, political speeches, news, dance music, and excerpts from the theatres, will be chosen by a special committee with a particular view to interesting listeners from abroad. Its power is fifty kilowatts, but a special type of transmitting valve of 100 kilowatts allows for a very large margin of maximum modulation power, and during transmission a power of 200 kilowatts is reached. Another innovation is the use made of a mercury vapour rectifier in the power supply circuits, which allows for 95 per cent. efficiency in converting the alternating current to direct current.

APPARATUS designed to transmit pictures, weather charts, and maps to aeroplanes in flight has been successfully tested in Cologne. First a weather chart was transmitted, enabling the pilot to determine conditions likely to be encountered on his route from Berlin to Cologne. The position of a heavy thunderstorm next was sent, and the pilot was able to estimate the speed of the storm and the time he was likely to encounter it. The third picture was that of an airport, part of which was flooded, and from the picture the pilot picked a suitable landing spot elsewhere. An exact weather chart, much more valuable than a detailed report, may be transmitted in three minutes, while sending the detailed report takes a much longer time.

FROM Sweden comes a report of the first case of international wave-snatching in the records of European wireless. For some time past Swedish listeners have been conscious of trespass upon their allotted strip of ethereal sea, and they have not taken the affront lying down. Their Government has put a posse of radio police upon the scent—or rather the sound—and the pirate has been detected. The interference is said to come from the capital of a Central European State which, not content with the wavelength provided for it by international agreement, has annexed that of another country. The Swedish radio authorities, owing to the lack of space in the maze of ethereal traffic, are unable to change

their own wavelength. They have now, however, given the Swedish radio listeners the comforting assurance that as soon as the latest and most powerful of the Swedish transmitting stations is completed it will be strong enough to drown the freebooter and even compel his adherents to listen to Sweden whether they want it or not.

ACCURATE pictures of a flash of lightning, which lasts only an infinitesimal part of a second, now may be taken with an extremely sensitive eight-day camera known as the "kydenograph." This camera records the polarity, magnitude, steepness and direction of travel of lightning surges. A clockwork device automatically turns the roll of film and records the time of the flash. It needs no care except the weekly change of film. The instrument is to be used in connection with research work undertaken by an American engineer to discover the connection between thunderstorms and atmospheric interference in radio reception.

TALKING pictures have been successfully utilised by the Philadelphia police department as an aid to fighting crime. The police, besides making sound-films of criminals to assist them in identification, have also used the equipment to record the confession of a crime in an effort to show that the criminal was not tricked into admitting his guilt. Talking pictures of police characters, criminologists believe, would be a great aid in identifying them, as the voice and various views and postures would supplement the ordinary front and side views of the suspect taken by the police photographer.

NO sure means of locating submerged submarines has yet been developed, although various types of listening gear have proved moderately effective. Statements recently have been made, however, that the British Admiralty has developed apparatus for locating submarines at a distance. Such a device, if perfected, would mean the end of undersea fighting craft, but the range of listening gear used in all the navies of the world, so far as is known, is measured in hundreds of yards.

rather than miles, so that, unless the sea were alive with scout boats, many submarines would escape detection. A large proportion of the devices in use at present for locating submarines depend on the propagation through the water of beams of sound waves too short to be audible to the human ear. They differ from audible sound waves in that they can be directed along a comparatively narrow path, and can be produced from electrically excited crystals of quartz, similar to those used in radio transmitters. These sounds are reflected as echoes from solid objects, and are picked up by delicate and highly-complicated radio receiving apparatus, passed through amplifiers, and are finally interpreted by trained observers.

A PAIR of head phones, the earpieces of which are built to fit into the listener's ear channels, form an interesting part of the equipment of an American flying radio plant. The latter consists of a high tri-motored all-metal monoplane, elaborately-equipped as a radio laboratory to test radio transmitting and receiving sets for pilots. The plane will also be used for research work in connection with the development of radio apparatus for aircraft communication, from the earliest experimental stages to the final testing of the finished product in actual flight.

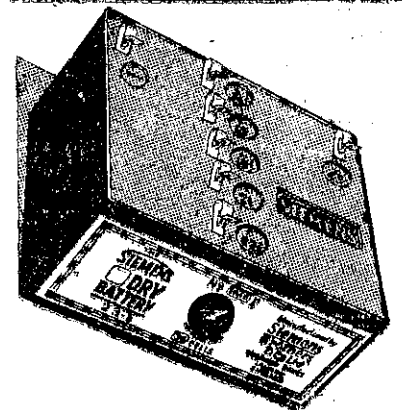
COMMUNICATION reaching almost from the North to the South Pole was established when the northernmost Soviet radio station in Franz Josef Land carried on a conversation with the radio station at Commander Byrd's Antarctic base, over a distance of 12,500 miles. This is a new record in long-distance communication. The Americans informed the Russians of Antarctic weather conditions and of their future plans, and inquired about the search for missing American aviators.

WITHOUT a knowledge of radio or of code signal, it is now possible for any person, no matter how ignorant of radio, to send out distress signals from a ship or aeroplane. The signal automatically gives the position of the craft and its call letters in the international radio code. The automatic device was invented by Lieut. C. A. Perez, of the Cuban Signal Corps, and it recently was tested before U.S. Navy officials. All that is necessary to operate the transmitting device it is explained, is to plug in the correct latitude and longitude indications, then throw a switch. Complete, the instrument weighs only fifteen pounds, and is about the size of a portable typewriter. Because of its compactness and light weight, the inventor expects it to be used widely in aircraft.

A HUGE bonfire composed of obsolete radio sets was witnessed recently by an interested crowd in Philadelphia. One thousand receivers of all designs, varying from humble crystal sets to eight and nine-valve super-heterodynes, were destroyed to relieve the glut of old-fashioned radio sets on the market. Dealers made generous allowances on every set brought along by owners to be burnt, provided a receiver of more modern design was purchased.

SCREAMS and cries of "Let me go!" were heard coming from an apparently empty house by a horrified London resident recently. Three police officers were hurriedly summoned to the scene—only to discover that the sounds heard were emanating from a loud-speaker owned by the caretaker of the building. They were part of the dialogue of W. W. Jacob's play, "The Monkey's Paw," which was being broadcast from 2LO.

RUMOURS are current in England at present that as a result of the recent linking together of the Marconi and Gramophone Companies the sale of wireless sets may pass into the hands of the music trade, and that after a while we shall go to the music shop to buy our valves. Such a change, however, need not be feared. The working and maintenance of wireless apparatus, combined with the difficulties of servicing, are far too complex to be handled by an inexperienced retailer, and for him to attempt to sell to the equally inexperienced customer is truly a case of the blind leading the blind. Let us leave wireless to the wireless trade and avoid the mistake of arousing prejudice when presenting new equipments to the wireless-interested public. The voice of the enthusiast is a strong one, and the unsatisfactory results of the handling of radio gear by unskilled salesmen will rouse his resentment.



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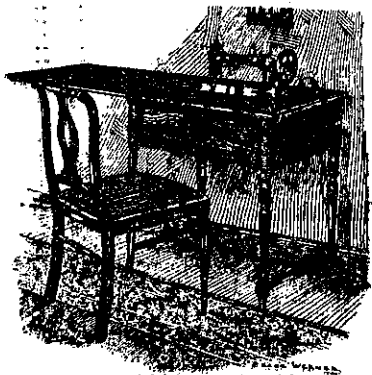
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RULES and CONDITIONS

The Problem is: "Why I Would Like an Electric Washer in My Home."

- (1) Give 7 reasons, sentences or points, using for each one not more than 12 words, in answer to the above problem.
- (2) Write neatly in ink; number the sentences; put name and address at bottom of entry.
- (3) The judge of the competition is the Managing Editor of both papers concerned, A. J. Heighway, and his decision shall be binding and final on all competitors.
- (4) Award will be made on the human value and merit of the reasons given, and not merely on literary expression or verbal cleverness thereof.
- (5) The competition is open to general readers of both papers; employees of newspapers, advertising agencies, and electrical houses are ineligible.
- (6) The official entry coupon, as published in either the "New Zealand Dairy Exporter" of February 20 and March 20, and the "Radio Record" between the dates of February 20 and April 4, 1930, must be used in forwarding entry, together with the entrance fee of 1/- postal note.
- (7) The competition definitely closes with the clearance of P.O. Box 1032, Wellington, at 9 p.m. on Saturday, April 12, and the award will be made as soon as possible thereafter.
- (8) The winner's full name and address, and the winning entry, will be published in both papers, together with the names and addresses of the winners of the 15 consolation prizes.
- (9) The winner must select, within one month of the award being made, the prize from those washing machines which have been advertised in the columns of either paper during the currency of this competition.
- (10) There is no limitation upon the number of entries by any one competitor, provided the official coupon and entrance fee are forwarded in each case.

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WELLINGTON**



IN order to stimulate interest in the comfort, convenience and labour-saving possibilities of electricity in the home, the "New Zealand Dairy Exporter" and "Radio Record" newspapers combined offer as a prize for his or her skill one Electric Washing Machine (to be selected as stated in the conditions), to that person who, in the opinion of the judge, sets out in seven (7) sentences, each of not more than 12 words in length, the seven (7) best points in answer to the question: "Why I Would Like an Electric Washer in my Home." To the five (5) next best entries, orders for One Pound (£1) each will be given, redeemable for a One Pound rebate in the purchase of any electrical apparatus anywhere in New Zealand, and ten (10) cash prizes of 10/- each.

The official entry coupon from either paper must be used in making entry. Employees of newspaper staffs, advertising agencies, and electrical houses are not eligible. The competition closes at 9 p.m. on April 12, 1930. Send entries on official coupon, with specified entry fee, to "Washer," P.O. Box 1032, Wellington.

A. J. HEIGHWAY,
Managing Editor,
"Radio Record."

I enclose my entry for the Washing Machine Competition and I agree to accept your decision as final.

Name

Address