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WELLINGTON, FRIDAY, SEPTEMBER 7, 1928

All Eyes on the Tasman Flight

Aviators await Favourable Weather Conditions

WITH the definite announcement that the long-expected flight across the Tasman from the Richmond aerodrome to Sockburn (Christchurch) would be attempted by Captain Kingsford Smith this past week-end, public interest was raised to concert pitch. Unfortunately that interest was doomed to temporary disappointment. Owing to adverse weather conditions the departure on both Saturday and Sunday evenings, tentatively fixed, was deferred, and at the moment of writing no indication is available as to when the attempt will be made. It can only be assumed that the first opportunity of satisfactory conditions will be seized and the flight may be launched at any moment independent of the moon, which, although a material factor in navigation, is not absolutely essential.

LISTENERS will be well served when the flight does take place. All four stations will be on the air throughout, giving official news to be provided by Government sources as transmitted from the plane itself. Two warnings are given listeners. The first is to amateur transmitters requiring them to keep off the air to avoid interference during the progress of the flight. The second is to those able to listen direct to the Morse messages of the "Southern Cross." Much of the matter to be transmitted by the aeroplane will be copyright press matter or copyright private messages, and it will be a breach of the regulations for such matter to be decoded and committed to writing by any listener. News of the aeroplane's progress will be available from official sources and, as indicated, will be broadcast at regular intervals by all stations.

Special accounts of the departure and arrival will be provided through special independent sources, all arrangements to this end having been made.

THE reliability of all equipment associated with the "Southern Cross" has been strongly impressed upon the public by the proof of performance. On the Pacific flight the radio transmitting apparatus never failed, although, for one period, the approach of dawn and its effect upon atmospheric conditions did prevent their messages being heard. The reliability of the transmitter was greater than that of the receiver, although this last was more affected by the noise of the motors than any technical defect. Interference from the ignition system on the plane was not at all serious, but the operator, Mr. Warner, although he kept the 'phones clamped closely to his ears, could hear only the loudest signals. The aerial used consisted of 15 feet of copper wire with weight attached suspended beneath the aeroplane.

ALTHOUGH on the earlier stages of the Pacific flight the "Southern Cross" received some assistance from radio beacons, such aid will not be available on this flight which will need to rely upon expert navigational skill for success. The radio beacon offers the solution for reliable aerial travel on established routes and the most modern equipment presents a practical miracle in its guiding powers. As aviation progresses in these parts so will radio equipment expand.

Just what radio does mean to aviation can be glimpsed from this account of technical equipment now available and in use on recognised air routes. It is taken from the July issue of the proceedings of the Institute of Radio Engineers, New York. "The directive radio beacon is a special kind of radio station, usually located at an airport, just off the landing field. Instead of having a single antenna like an ordinary radio station, it has two loop antennas at an angle with each other. Each of these emits a set of waves which is directive, i.e., it is stronger in one direction than others. When an aeroplane flies along the line exactly equi-

distant from the beams of radio waves, it receives signals of equal intensity from the two. If the aeroplane gets off this line it receives a stronger signal from one than the other.

"THE indicator connected to the receiving set on the aeroplane shows when the signals from the two beams are received with equal intensity, by means of two vibrating reeds which are tuned to different modulating frequencies used on the two antennas at the directive radio beacon station. When the beacon signal is received the two reeds vibrate. The tips of these reeds are white in a dark background so that when vibrating they appear as a vertical white line. The reed on the pilot's right is tuned to a frequency of 65 cycles, and the one on the left to 85 cycles. It is only necessary for the pilot to watch the two white lines produced by the vibrating reeds. If they are equal in length, he is on his correct course. If the one on his right becomes longer than the other, the aeroplane has drifted off the course to the right (into the region where there is more of the 65 cycles). If he drifts off the course to the left, the white line on the left becomes longer.

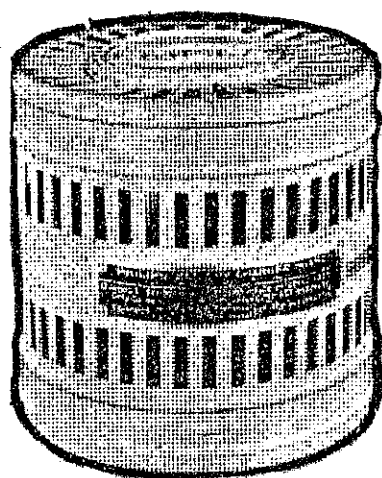
"SUCCESSFUL flights have been made up to 135 miles, in fog and over hazardous mountain terrain. This distance is more than enough to demonstrate the success of the system, as it is contemplated that the directive radio beacon stations will be placed not over 200 miles apart. Beacons placed at such distances, with a straight airway between them, will be supplemented by small marker beacons at intervals along the route. A characteristic signal from a marker beacon will show on the visual indicator aboard the aeroplanes what point is being flown over.

"The whole receiving system comprises a small indicator unit on the instrument board weighing one pound, a receiving set weighing less than 15 pounds, and a 15 pound battery."

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Please send me at once full detailed description of your new TRICKLE CHARGER.

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Date

Amazing Facts about Radio Sounds that Burn



THE idea of a ray or vibration fatal to human life has long held the imagination of the experimenter and the general public alike. Death rays have often been "discovered," and usually exposed as fakes, and volumes have been written of the possible dire consequences of wars waged with destructive electrical vibrations. The conversions of the electrical vibrations into mechanical vibrations has been suggested, the consequences speculated about, but not till recently accomplished. Although it cannot be said that this discovery has introduced an era of destruction unequalled in history, yet the effects of this accomplishment are so amazing that they add a new chapter of science.

IT is quite easy to produce electrical vibrations of a very high order. With short-wave oscillators, electrons can be made to swing back and forth in circuits as rapidly, as ten million times a second. However, there is no sound reproducing apparatus that would respond to these prodigious speeds. If such currents are allowed to flow through an ordinary loudspeaker nothing but silence would prevail.

In the first place the diaphragm of the loudspeaker would be too bulky and massive to respond to these rapid

vibrations, and even if it were able to respond, the human hearing apparatus would not be able to detect the sounds produced, the limit of hearing being about 16,000 cycles per second.

Physical Vibration.

THE problem confronting those endeavouring to transfer these electrical vibrations into mechanical vibrations has been to find some substance which would respond to vibrations so high. A substance—quartz crystal—has at last been utilised. The discovery of its usefulness for this has been of great commercial importance, especially as this crystal has proved a great stabilising unit in wireless transmission.

When a crystal is placed in a current of high frequency, corresponding to its natural frequency, resonance occurs, and the amplitude of the vibrations of the crystal become very great.

The "still" sounds produced in this way are capable of many curious feats. A glass tube vibrated at the rate of 300,000 oscillations per second, will sear the flesh of the fingers if it is squeezed tightly. Benzol on water is thrown into such violent action that

it is driven off into the air as a fine mist or smoke. Frogs swimming in liquids vibrating at this high rate are killed, and glass tubes eventually succumb to the super-sonic frequencies that disrupt the ordinary molecular organisation.

Curious Effects.

WHEN it came to higher frequencies 100,000 to 700,000 cycles, it was found necessary to immerse the crystal in an oil bath. A beaker of water lowered to a point beneath the surface of the oil, demonstrated a most remarkable phenomenon. The super-sonic frequencies at which the molecules of oil were responding were instantly communicated through the glass to the water in the beaker. The surface of the water was at once pushed up into a mound, while millions of minute air bubbles appeared in the fluid, as when water is heated. When subjected to the same process, mercury was blown into clouds of fine particles projected up through the water, which soon became black as ink.

MAXIMUM heating effects were produced with a small flat-bottomed

conical flask drawn out to a rod at the top of about 1-millimeter in diameter. The flask was mounted on a solid support in a vertical ring and pinion device, and the distance between the flask and the crystal plate could be accurately adjusted. By bringing pine chips into contact with the top of the rod, these were caused to emit sparks, and holes were burned through them. A plate of glass placed in contact with the rod was ground to powder. If a glass tube were coated by a thick coating of oil and the end dipped into an oscillating bath the film immediately gathered itself into a system of equidistant rings showing the positions of the nodes of the stationary waves formed by the interference of high-frequency vibrations which were at the time running up and down the tube.

PERHAPS the most interesting of all these experiments was that which tested the biological effect produced by the vibration. Red blood corpuscles were completely destroyed and the serum in which they are suspended lost its turbidity and became a red colour very similar to the solution that would be produced by aniline dyes, unicellular organisms, belonging to the lowest orders of the animal and vegetable kingdoms. Protozoa and the lowest Algae, were almost instantly dispatched and the cells torn open.

NOTES FROM 1YA.

TUESDAY, SEPTEMBER 11.—Tuesday brings Uncle George, and with him cousins playing the piano and reciting. There will be birthday greetings, and the radio postie will go his rounds.

WEDNESDAY—Good-evening Uncle Tom! Songs and stories for all in his happy store.

THURSDAY—Welcome to the Bayfield School Choir who have been holidaying, and are fresh and ready with new part songs and solos and recitations for us.

FRIDAY—To-night Nod and Aunt Jean will amuse you with stories and music. The De Marr Sisters will also be present and give songs and dialogues.

SATURDAY—Cinderella will have stories and birthday greetings for Radioland. Cousin Doreen will sing, and Cousin Dick will play the piano.

SUNDAY—Children's Song Service conducted by Uncle Leo, assisted by Cousins from Green Lane Congregational Sunday School.

NOTES FROM 2YA.

MONDAY, SEPTEMBER 10.—Aunt Gwen and Uncle Jeff will greet Radioland to-night with stories, riddles and puzzles, so have your pencils ready little ones. Cousin Marjory will sing and two pupils of Miss Gray will play pianoforte solos and a pianoforte duet.

TUESDAY—Big Brother Jack will answer letters and wish the little birthday folk happy birthdays.

Children's Sessions

There will be some clever little girls too, who will give you some bright music, recitations and choruses.

THURSDAY—Aunt Gwen to say "Hullo" to-night, and give fairy messages. Little Cousin Betty will sing, Cousin Molly will ask for a bedtime story and big Cousin Betty will be the mother and read her just one. Big Cousin Vermont is a wonderful bird and animal imitator, so we will have a zoo in the studio. Listen and hear Aunt Gwen talk to the lion.

FRIDAY—To-night brings Uncle Ernest for his talk to our happy family with his stories, poems and birthday greetings, and there will also be Cousins Joyce and Ailsa whose singing will delight you all. Cousin Babs will play two of her enjoyable pianoforte solos.

SATURDAY—Aunt Gwen and Uncle Toby, and who else do you think? The clever pupils of Mrs. Theo. Hill's—little girls and boys who have won prizes in the Wellington Competitions. Two of them are only six years old.

SUNDAY—Uncle Ernest will conduct the children's Song Service, assisted by the Cambridge Terrace Congregational Sunday School.

NOTES FROM 3YA.

MONDAY, SEPTEMBER 10.—"Let's go travelling"—yes, do let's!! We're all off to romantic Hawaii to-night. Hawaiian songs and ukulele music. Cousin Gwen is bringing her zither along so we are sure to have a happy time.

WEDNESDAY—We are having a night of music and fun with Brother Bill from Australia, and his gramophone records. Camp fire songs, dances, and fun by "Dismal Desmond."

THURSDAY—Chuckie and Aunt Pat will be assisted by the choir boys from St. Michael's Church to-night, so we will have some lovely music, stories and part-singing.

FRIDAY—Big Brother on deck with all the little cousins from Shirley, in songs, choruses, and little playlets.

SATURDAY—Uncle Sam in merry mood will be ready to tell stories and jokes—and Cousins Francis, Dorothy and Jim are to help him.

SUNDAY—Children's Song Service conducted by Uncle David, the hymns to be sung by the children from Moorhouse Avenue Church of Christ Sunday School.

NOTES FROM 4YA.

TUESDAY, SEPTEMBER 11.—Across Egypt to look at the pyramids, and the place where Tutankhamen lay, until they broke the door down and showed the lovely dolls and toys hiding there. Pyramids are the most exciting places to go rambling in, full of dark rooms, quaint staircases, and when they are first opened, they contain all sorts of dolls, and toys, and models of the sort of life Egyptians used to live. Big Brother Bill is taking the family to see them to-night, who's coming with him? The High Street School choir will be along too, and the radio postie to be sure.

FRIDAY—A lizard as big as an elephant, and a beetle that flew like a bird as big as a crane; then, there was a tiger with tusks like a razor and a body as big as a cow; and a giraffe with a body as big as a grizzly bear, and a neck sixty feet long. The queerest sorts of animals used to live on the earth, stranger than the animals that bothered poor Alice in Wonderland. What about coming with Aunt Sheila and Big Brother Bill, to-night, on the Time Scooter, to have a good look at them all? The lovely thing is they won't see us because we shall wear the Magic Cloak that will make us invisible. All you must do is get on to 4YA by hook or by crook, and you can go with the family.

AN elaborately fitted research laboratory is maintained by the B.B.C. at London.

THE receiving aerials for the trans-Atlantic wireless telephone service are situated in Fifehire and are about 600ft. long.

ONE U.S.A. firm boasts that by means of radio advertisements it sold between February and April sixty thousand pairs of silk stockings.

THE Duke of York was present at a Scout camp at New Romney, August 9, when part of a sing-song by the boys was relayed from London.

IN Great Britain there are twenty-two stations, but the revenue is more than £1,000,000 per annum from two and a half million listeners.

MOVING Coil Loudspeakers are known in the country of their origin (U.S.A.) as Dynamic Speakers, a name applied by the patentees.

THE Norwegian railway authorities are installing a regular train telephone service, using a wavelength of 84 metres, on certain railway lines.

IN Czecho-Slovakia the sole operating right is held by a commercially-constituted company, in which, however, the Government holds a major interest.

Radio Round the World

A UNIQUE radio store in Oregon (U.S.A.) is built as an exact duplication of a radio receiving set. It is equipped with dummy switches, knobs, and dials.

IT appears that even the B.B.C. cannot satisfy all. A "Bored by the B.B.C." campaign has been inaugurated, and deputations wait on Parliament complaining about Government control.

DURING 1927 transmission from all the B.B.C. stations covered over 68,000 hours. Entertainment naturally formed the bulk of all programmes, but there was a strong and growing demand for other features.

GREAT financial difficulties have beset the career of the "Radio Belgique" Company of Belgium, since its inauguration a number of years ago. A licence is payable but no part of this is available to the company.

MANY more stations will be necessary before the companies can provide services that will enable Australian listeners in all or in most settled parts to obtain service reasonably free from distortion or interference.

THE Lille station, France, recently broadcast a "balloon" transmission, the impressions of a voyage in the air being relayed to the station and rebroadcast.

SEVERAL of the few amateur stations in the Kenya Colony (Africa) have been heard in England, despite their low power. Wireless transmitters are now found on almost every conceivable portion of the globe.

PERMISSION has been given for the broadcasting this year of the Cenotaph service from Whitehall on Armistice Day. A permanent underground cable has been installed between the Cenotaph and a secluded control point a little distance away.

THE Munich station (Germany) recently scrapped its metal masts and replaced them with wooden masts, 190 feet high. This has improved the range of the station by removing a certain amount of absorption which had previously hampered reception.

LITTLE has been heard here of the Dynamic Speaker, but it has been manufactured and sold in huge quantities in the States for the past two years. The patentees are producing

1000 units per day. Others have now been licensed to manufacture the product.

IT is pleasing to see that, in recent international amateur tests, New Zealander (3AR) secured fifth place against a very large field. He was surpassed only by an Englishman, a Belgian, a Porta Rican, and an Australian. The winner, 5BY, is often heard in Australia.

BRAZIL is not the best type of country from the physical aspect for broadcasting, possessing as it does, its principal cities along its extensive coastline, with a hinterland largely uninhabited, but its broadcasting stations are nevertheless relatively numerous, though generally of low power.

OF the European broadcasting systems, that of Spain approaches most nearly to the standard of American competition and freedom from regulations. Commercial consolidation is, however, at work, and a Government inquiry into the whole subject was begun in 1927.

NOT long ago, the New York Police Department brought 110 wireless direction-finding sets at a cost of about £3000. It is now announced that these are to be sold by auction, experiments having proved that the sets are too tricky for the average policeman to handle.

NERVE currents from the human body have been broadcast by the University of Iowa. The sound was something between a loud scratch and a low rumble, if such can be imagined. Two tiny electrodes were pressed against the muscles at various points on the subjects body, the resulting sound being amplified.

THE ceremony of the signing of the treaty for the renunciation of war was broadcast from Daventry and rebroadcast throughout England. Signals were carried to Daventry by telephone line. Many short-wavers, including Chelmsford (5SW) were on the air to keep as much of the world as possible in touch with the proceedings.

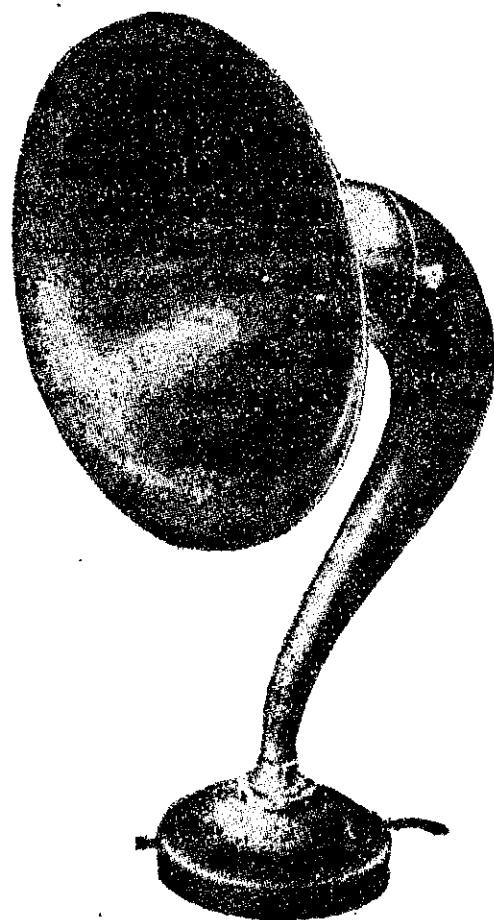
IN France it cannot even yet be said that nationally co-ordinated broadcasting exists. The history of French broadcasting has been a chequered and troubled one. The elements of a national system were, however, laid down in a new law in December, 1926. It has been recently intimated that the Government were to take over the service.

THE second annual American Radio Trade Show, held last month in Chicago, was quite a brisk affair. It occupied 30,000 square feet and 25 floors of rooms, 155ft. of these being used for demonstrations. Exhibitors numbered 205, of which 48 were set-makers, 43 of whom showed "Mains" sets. Moving coil loud-speakers were predominant.

IN Switzerland a number of stations belonging to local companies, operated until recently without interdependence. A union has now been formed which includes all station except for the time being, one. License revenue is available for their support, but the nature of the country and the distribution of its people make the situation of broadcasting exceptional.

*There is only one sure way of obtaining
High Class Reception, and that is by using*

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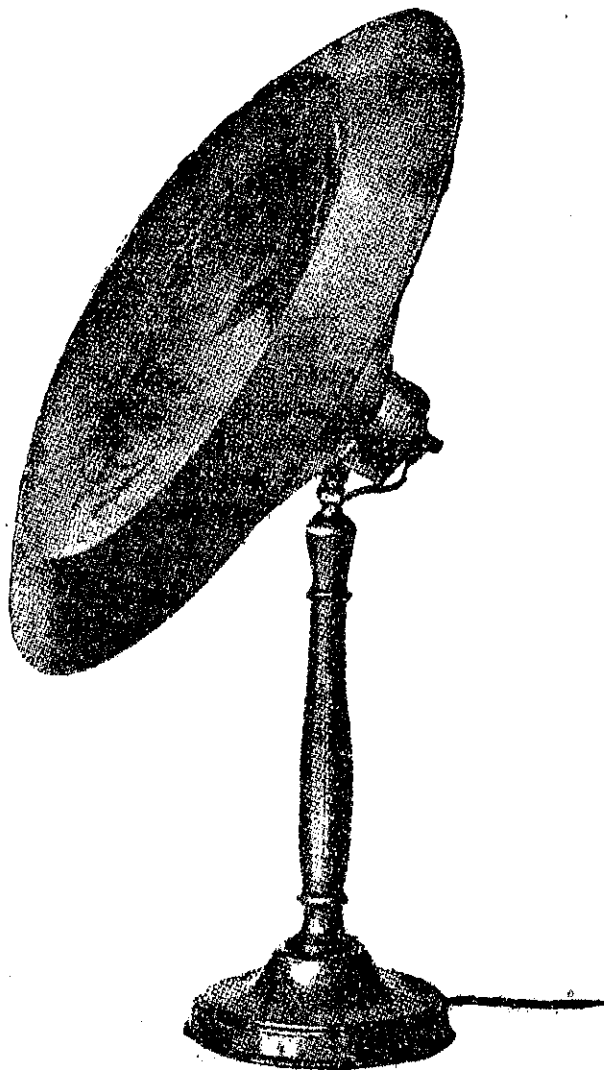


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SPECIAL PRICES for One Week Only

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Sterling Dinkie	35/-
" Popular ..	42/-
" Baby	45/-
(Black)	
" Baby	50/-
(Black and Gold)	
" Mellovox ..	42/-
" R33	£5/19/6



"MELLOVOX"

Lawrence & Hanson Electrical Co., Ltd.

33-35 Lower Cuba Street,
WELLINGTON.

Broadcasting in Canada

AT present the control of broadcasting in Canada is in the hands of the Federal Government at Ottawa. A license fee of 4s. 2d., payable annually at the commencement of the Government's financial year, is imposed on listeners. It is estimated that there are 350,000 receiving sets in the Dominion, of which 260,000 are licensed.

After deducting commission paid to radio dealers and certain postmasters for collection of license fees, the revenue at this date amounts to approximately £40,000 per annum. The whole of this sum is expended by the radio department of the Ministry of Marine and Fisheries upon a service to listeners.

This service consists of the detection and prevention throughout the Dominion of electrical interference with broadcasting. Radio suffers much from this source, because Canada is a land in which practically all electrical power, including that used for lighting and heating, is carried overhead by cable, and the expenditure of the license revenue on the elimination of this trouble is universally applauded.

Seventy broadcasting stations owned by commercial undertakings operate under license for which a small fee is charged by the Ministry of Marine and Fisheries, which allocates the frequencies and the transmission hours. Of these stations there is only one using more than 2 kilowatts in the aerial.

Owing to the vast number of comparatively weak American and Canadian stations which share equal hours with the more powerful stations, the townspeople are well catered for whereas the country folk have an inadequate service.

There is a need for a reorganisation which is being contemplated.

A Wireless Phenomenon

ACCORDING to the "Swedish Export" journal of July, Kalmar, a quiet little town in Sweden, is the scene of a wireless performance by means of a coal shovel acting as a loudspeaker that is entertaining the multitude and puzzling the experts. In the station of the local Fire Brigade a coal shovel suspended in its usual corner suddenly took upon itself to act as a loudspeaker—a fact that was only realised after the lapse of some time. At first the firemen listened with great awe to the cascades of sound and bursts of song emitted by the shovel.

Now the shovel is famed throughout Sweden, having been interviewed, so to speak, by correspondents from the capital. At the visit of one of them the shovel was giving a lesson in English without, the correspondent adds, the northern accent that one would expect the shovel to have contracted from its long familiarity with coals from those regions of Britain.

An investigation showed the shovel to be suspended in contact with the power line to the local broadcasting station, but beyond that the experts are unable to explain the clear and distinct sounds emitted. Meanwhile the Kalmar firemen are proud of their shovel and basking in the unwonted notoriety of their station.

THE British Broadcasting Corporation was constituted by Royal Charter December 31, 1926. It replaced the British Broadcasting Company, which had been formed in 1923 and consisted of some 300 manufacturers and shareholders.

At least 2500 schools in different parts of Great Britain are equipped with wireless sets.

ONE most important and satisfactory effects of the installation of "crystal control" at 2YA Wellington is the marked sharpening of the tuning of that station's wave. Many residents of the outlying suburbs of Wellington report that they are now able to "cut out" the big station and get certain Australian stations while 2YA is on the air—a feat found impossible prior to the installation of "crystal control."

IT is illegal to operate a receiving set without first taking out a license, costing 30s. a year, from the Post Office. Some people do manage to listen without a license, but it costs much more in the end. It also costs a great deal in self-respect.

RECENT experiments between Canada and the United States showed normal and steady signals over water during the night while there were astounding variations over land. This difference has been interpreted as being due to a more rapid deionisation in the Heaviside layer over water than over land after sunset. Difference in ionisation is assumed to change the surface that reflects and refracts radio waves, due to vertical polarisation. While this causes fading and frecking in ordinary radio transmission, in com-

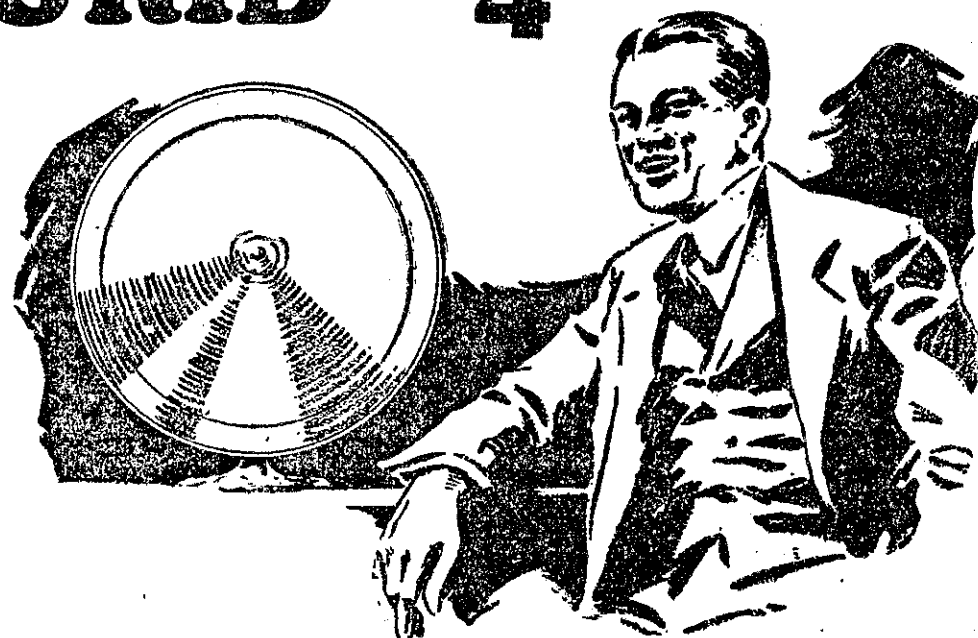
pass work it causes distorted bearings. Unless frequent checks are taken on known fixed stations, this might mean that bearings given to vessels would be several degrees in error, with possible dire consequences. Fortunately, one of the first effects of night effect is to dull or blur the minimum so that the operator has ample warning.

SO far as is known Henry Taylor, of Atwood, Kan., U.S.A., is the oldest fan in the world. A radio set was installed in this venerable centenarian's home on his 103rd birthday. Broadcasting stations made special note of the unique circumstances of this birthday gift. The aged man's family selected a five-valve neutrodyne single-control receiver as best suited to his needs because of its simplicity of operation.

He heard the Heeney-Tunney Fight at Loud Speaker Strength

—on the wonderful new SCREEN-GRID "4"

—But Read Mr Buckley's remarkable letter yourself:



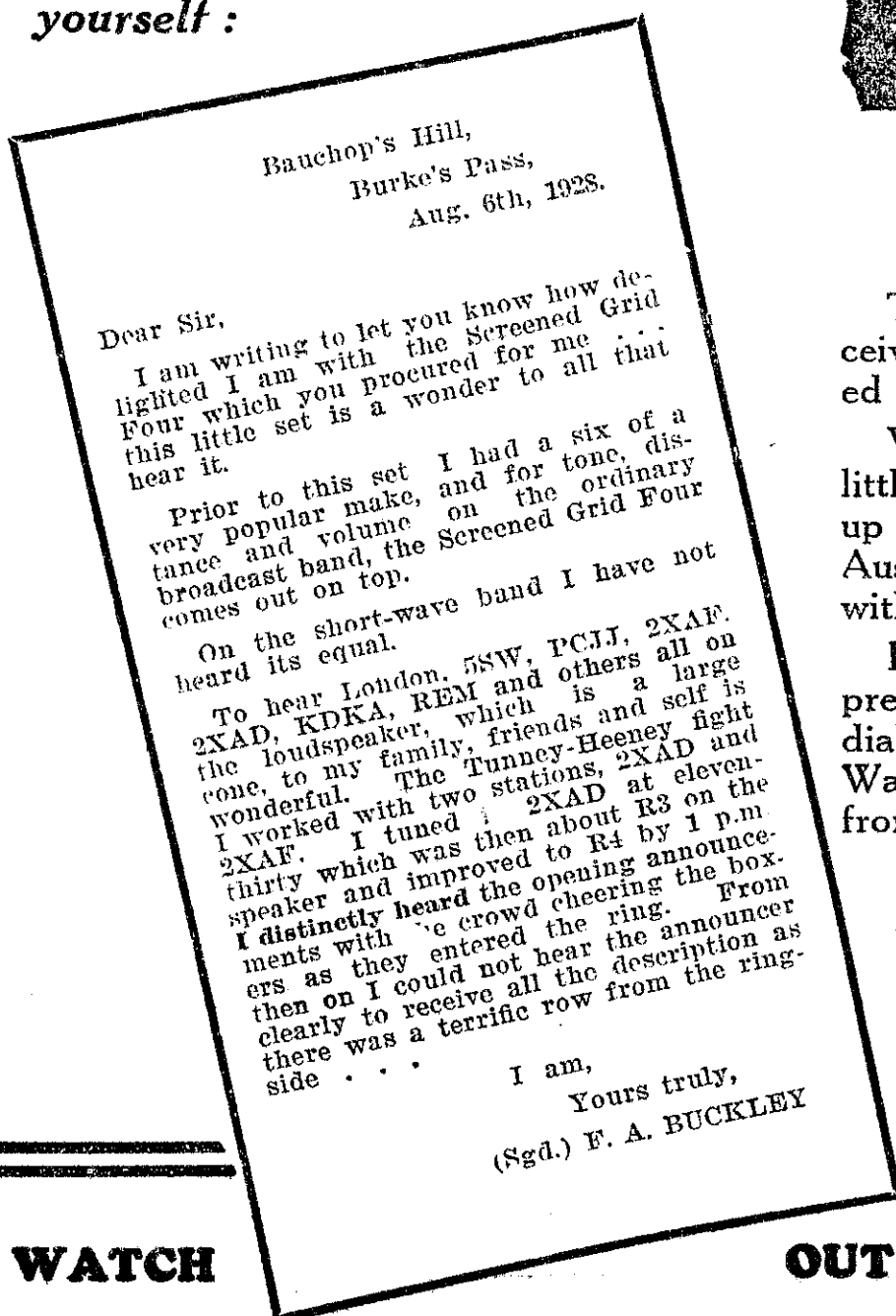
This wonderful new Screen-Grid 4-Valve Receiver is one of the most remarkable sets ever offered to the radio-loving public.

Wherever it has been tried, results have been little short of marvellous. Beginners have picked up stations in Siberia, America, Holland, England, Australia, etc., at tremendous loudspeaker volume, with the utmost ease.

Incorporates the new screen-grid that will, it is predicted, revolutionise radio reception. Single dial control; all aluminium duco-finished cabinet. Wave-length 20 to 550 metres. Full particulars from—

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WELLINGTON, FRIDAY, SEPTEMBER 7, 1928.

EDITORIAL NOTES.

FINE weather only is awaited for the launching of the attempt to fly the Tasman. Based on performance the public expects the flight to be successful. Captain Kingsford Smith, with the ultimate interests of aviation at heart, has rightly declined the publicity-mongering challenge issued him to fly without radio or navigational aid. No suggestion could have been more stupid. As a feat the successful crossing of these troubled waters will be outstanding. The pioneer achievement of the feat may in the long run herald a regular service for mail-carrying purposes. That is a distant possibility.

A DEVELOPMENT of American broadcasting that cannot be ignored and may contain a lesson for New Zealand is the growth of advertising over the air. As is well known American broadcasting stations are privately owned and rely for their support upon the sale of time and sponsored programmes. Large-scale national advertisers, seeking the public good will, court same by providing "feature programmes" under their name. Newspapers, on the occasion of national events, hire stations for the broadcasting of accounts by their own special writers. For instance, the Heeney-Tunney fight was described on the air by a leading paper by its own writers as an advertisement for itself. Another paper arranged a special broadcast on short wave for New Zealand. Again, political parties in the Presidential campaign now in progress hire "time" as part of their publicity. It is computed that sixty large-scale national advertisers spent last year between £2,000,000 and £2,250,000 in broadcast advertising. This method of advertising has, of course, been linked in with national newspaper and magazine advertising, and has met with the hearty co-operation of skilled advertising agencies. An address before an advertising convention admitted that two years ago advertising experts were sceptical of the value of radio. To-day they are fully won and enthusiastic. The attitude of the public to the sponsored programme is, of course, the crux of the matter. Whereas a year ago there was still doubt as to how the public viewed receipt of programmes at the favour of a national advertiser, to-day it is held that if these were withdrawn for any reason, there would be a demand for their restoration. That is one view. On the other hand, it is stated that the public does not express appreciation of programmes sponsored by advertisers. This statement comes from Post Office officials, who state that "applause cards" drop to vanishing point when a radio band or orchestra is sponsored by a commercial firm. That fact may not, of course, affect that appreciation of the programme, but simply the expression of it.

New Zealand has relied so far on listeners' fees for broadcasting development. Would an adaptation of the American system of "selling time" be an advantage under New Zealand conditions?

Welcome Home!

Tom Heeney to Broadcast from 1YA

THE General Manager of the Broadcasting Company recently sent a radiogram to Tom Heeney, who is on board the Aorangi, en route for New Zealand, with his wife and brothers, asking him to broadcast from 1YA, Auckland, his greetings to the people of New Zealand. The reply, addressed to Mr. Harris, who personally knows the Heeneys, has come back:

"Will be pleased to broadcast greetings.—Tom."

It is the intention of the Broadcasting Company to describe the arrival and welcome at the Auckland wharf. The New Zealand boxer is sure of an enthusiastic reception, and a microphone will be installed on the wharf for the purpose of giving listeners a realistic presentation of what is taking place.

Concerning the Heeney-Tunney fight, an interesting letter has come to hand from America. It will be remembered that a special review of the contest was broadcast by 2XAD at 3.30 p.m. New Zealand time. This review was sent as the result of a cablegram from Mr. Harris to Mr. Edgar H. Felix in New York, and the letter indicates that at his personal request 2XAD went to considerable trouble to prepare and broadcast a summary descriptive of the fight specially for New Zealanders.

The letter from Mr. Felix is as follows, and it should be noted that he expresses America's appreciation of the fight put up by Tom Heeney:—

"Dear Mr. Harris,—

"It was very kind indeed of you to

send me your cable advising that you successfully rebroadcast the summary of the Tunney-Heeney fight. The General Electric Company manifested a most remarkable spirit of co-operation in making this possible.

"It happened that I was detained late in the city on the evening of the fight and did not reach home till 9.30, which was some time after the preliminaries had gotten under way. I immediately telephoned Schenectady and secured a remarkably quick connection. None of the executives were available, but, fortunately, the chief operator of the station is a personal friend, and he is responsible for making possible the rebroadcasting of the summary. The principal thing which caused me concern after I had his consent was the possibility that you might not receive word through any announcement that a summary would be broadcast for your special benefit at midnight, our daylight saving time. Apparently, from your cablegram, you did so, and I am most pleased at the outcome. I am writing one of the officials of the General Electric Company expressing your appreciation and mine.

"I hope that the summary of the fight gave the New Zealand audience a full opportunity to realise the courage and gameness of Mr. Heeney. I would have been delighted to see your courageous man become champion of the world, and I hope that he will have an opportunity again to match his skill against Mr. Tunney. He has certainly made himself a hero with the American fight fans."

"Paris" Speaking

Broadcast of Signing of Peace Pact

THE signing of the Kellogg Peace Pact in Paris had its repercussions in radio circles in New Zealand. Great preparations had been made in Paris for the broadcasting of the speeches throughout all the countries of Europe and, in fact, over the world, for the occasion was looked upon as an epoch-marking one, and an effort was made to endow it with all the importance possible in the eyes of all peoples.

As far as the British Empire was concerned, the short wave station 5SW, at Chelmsford, was connected by land and submarine cable to the very room in Paris where the treaty was signed.

Station 3YA went on the air to rebroadcast 5SW in the early hours of Tuesday morning, August 28, and the result was very interesting to all listeners who considered it worth while to lose their sleep for the opportunity of listening-in to Paris. With all its imperfections, owing to the adverse conditions, the rebroadcast was a remarkable achievement—a relay from Paris to Chelmsford (the longest yet attempted by the British Broadcasting Corporation), a broadcast to the opposite side of the world, to be picked up on a receiving set, relayed again to the studio, and then broadcast again.

At mid-day in Wellington, a ceremony commemorating the occasion of the signing was held in the Town Hall. It was largely attended, the Prime Minister, the Right Honourable J. G. Coates, the Mayor of Wellington, Mr. G. Troup, members of Parliament, and representatives of the churches being among those present. The speeches made at this function were broadcast by 2YA and rebroadcast by 3YA, the transmission being perfect.

"Aerial," of the Christchurch "Star," after describing his vigil in the "wee sma' 'oors," heartily congratulates 3YA on its enterprise and achievement. He concludes his article: "It was well worth the sitting up for. It is not every day one can hear such an event, and, even though the words were indistinct and one could only guess—and guess wildly—as to the identity of the speakers, that did not detract from the thrill of listening in on what may prove to be one of the most important events in the history of the world."

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RADIO SPECIALIST.

Phone 4770.

S-O-S

TRAVEL IN COMFORT BY
CARWELLINGTON — PALMERSTON
NEW PLYMOUTH.

Use Our Booking Offices in Advance.

Know Your Set!

WHAT a great pity it is that listeners as a whole cannot be brought to take sufficient interest in their outfits to enable them to give the best results that they can. Instead of that, more than half of the listeners either let their batteries run down until their sets refuse duty or do some other silly thing; and then they blame the Broadcasting Company, when all the time it is their own fault. Personally, I can get on any night of the week good music from somewhere, and if I can do it others can do likewise. They only need educating up to it, that's all; but therein lies the difficulty. Still, no problem is too great to tackle and overcome, except, so it would seem, those two bugbears—fading and static. This last week there has been heaps of good entertainment in the air simply for the taking.

N. C. WINSTANLEY, Picton.

All Blacks' Tour

Question of Re-Broadcasts

SPORT-LOVERS were very loth to resign themselves to the fact that it was impossible to rebroadcast descriptions of the All Blacks matches in South Africa, and the Broadcasting Company was repeatedly written to suggesting that it should be done, this despite the fact that it had been announced that such rebroadcasts were impossible.

Even recently, just before the last Test match, the company received a letter from a listener, who stated that he knew of instances of 2BL Sydney having been tuned in when rebroadcasting a South African short-wave station, which was describing a match in which the All Blacks were playing. One of his informants even heard the whistle!

The correspondent knew that no South African stations reach New Zealand, and the possibility presented itself to him that perhaps rebroadcasts could be carried out around the other two sides of the triangle.

Though incredulous regarding the rumours, the Broadcasting Company communicated with the New South Wales Broadcasting Company to ascertain what really the New Zealand listener had heard. The reply was an emphatic repudiation of the suggestion that it was a rebroadcast of a South African station, such being an impossibility.

It would be interesting to know what the New Zealand listener did hear.

It may be mentioned again that the Broadcasting Company made all inquiries, when the South African tour was arranged, as to the prospect of rebroadcasting the matches. It had seriously in view then a plan to send its own announcer. The inquiries, however, soon showed that the scheme was impracticable.

War-time Songs

ANOTHER CONCERT TO BE GIVEN

THE "Diggers' Concert" which was given by 2YA on August 4 still produces requests for another. So another is to be arranged and the date will be duly announced in the "Radio Record."

Sporting

Coming Attractions

Saturday, September 8:

Auckland v. Wanganui—1YA.

Wellington v. Hawke's Bay—2YA.

Club Rugby—3YA.

New South Wales v. New Zealand.

2nd Test—4YA.

Saturday, September 15:

New South Wales v. New Zealand.

3rd Test—3YA.

Wellington v. Otago—4YA.

Nelson v. Wellington—2YA.

Byrd's Visit

4YA Ready for Antarctic Expedition

ARRANGEMENTS are already well in hand to deal with the visit of Commander Byrd to Dunedin. As is well known, the Byrd Antarctic Expedition will make Dunedin its base. While the steamers are in port, listeners-in to 4YA will hear a great deal about the expedition and every effort will be made to secure addresses by some of the personnel.

The departure of the expedition for the South Pole will be a very interesting occasion. The great send-off which will be given to the Americans will be fully described, and arrangements have already been made for installing a portable transmitter on a tug which will accompany the ships down the harbour.

AMATEUR RADIO SOCIETY OF WELLINGTON

A meeting of the Society will be held on September 11, 1928, at 8 p.m. in DOMINION FARMERS' INSTITUTE, FEATHERSTON ST., Wellington.

Interesting Lecture and Demonstration by Mr. G. R. McCarthy (of Mack's Radio) on "Radio Reception, including Shortwave work."

Every Listener Made Welcome.

W. H. TAYLOR,
Hon. Secretary.

Wellington Radio Society

Meeting of Executive

Mr. Byron Brown (president) occupied the chair at a meeting of the executive of the Amateur Radio Society of Wellington on Thursday evening, August 30.

The quality of the transmission of 2YA, Wellington, came under discussion. Some complaints were voiced, and it was decided to report to the Broadcasting Company that blasting, bad modulation, and confusion of sound was affecting reception of 2YA locally.

The meeting decided to appoint another member to the committee to fill the vacancy caused by the resignation of the late secretary (Mr. Jones).

A resolution was adopted thanking the radio section of the Electrical Federation of New Zealand for having secured the co-operation of the Post and Telegraph Department in combating the causes of electrical leakages which have seriously interfered with broadcast listening in many areas. It was mentioned that loose bonds connecting the rails of the Wellington electrical tramways had been found to have been a serious cause of electrical noises which marred broadcast reception, but these had been remedied.

A document setting out the objects of a proposed Radio Institute was brought before the meeting. The following resolution was carried unanimously:—"After mature consideration, this committee cannot see its way to endorse a certain proposal submitted to form a Radio Institute of New Zealand." The opinion was freely expressed that the broadcast listeners could best attain their particular aims and objects by the federation of all the existing radio societies, clubs, and listeners' leagues. This was regarded as the only logical outcome of the present situation, and the hope was expressed

that a national council of listeners may be formed. So far as broadcast listeners were concerned, the proposed institute was not what was wanted.

The president was thanked for his donation for the purchase of a printing equipment for the society's window display notice of meetings.

Australian Golf

Early News over the Air

GOLFERS interested in the fortunes of the large number of New Zealand golfers competing in the Australasian championships taking place on Thursday, Friday, and Saturday, will be interested to know that arrangements have been made for the receipt of news by special cable messages and broadcast from all stations.

Re-Broadcast of 2FC

ON Thursday evening, August 30, at the invitation of the New South Wales Broadcasting Company, 1YA, 2YA, and 3YA rebroadcast 2FC, which was transmitting on relay an address by the Pope's Legate, Cardinal Ceretti. Atmospheric conditions were splendid for the occasion, and the rebroadcast from the three stations was very successful. It being 4YA's silent day, that station did not rebroadcast 2FC.

A LITTLE girl of nine years was listening-in just before the session started and as the sound of the carrier wave was heard through the loud speaker she was told to "hush, it's going to commence now."

"No, it isn't," she said, "that's only the wind blowing through."

FREE

Cut out this coupon and post to us; we will send you our Book of Circuits, detailing One, Two, Three and Four-valve Sets, Short-wave, Screened Grid, Gramophone Pick-up, Television, Lists of Stations, etc.

Name

Address

HARTLE & GRAY

British Radio Supplies,
CUSTOMS STREET, AUCKLAND.

Radio's Benefit

Appreciation in Hospital

THAT wireless programmes have a definite therapeutic value to hospital patients is the testimony given by the Medical Superintendent of the Wellington Hospital, Dr. H. B. Ewen, after a brief practical experience of the operation of the wireless installation in the Wellington Hospital. This experiment, as is generally known, has been carried out through the instrumentality of the Wellington Amateur Radio Society, which is now embarking upon a campaign to secure a further £700, in order to complete the equipment of all wards in the hospital with receiving apparatus. At a meeting of the executive of the Amateur Radio Society of Wellington, held last week, Dr. Ewen wrote as follows:—

"I understand that a further appeal is being made to the public to complete the wireless installation in the main buildings at the Wellington General Hospital. There are still nine wards to be connected up at an estimated cost of £700.

"The existing installation has given every satisfaction and the results have well warranted the expenditure. Wireless 'listening in' in a public hospital is far more than an entertainment. It is of definite therapeutic value in the treatment of disease. The influence of the mind over the body is well known, and anything which helps the patient to be cheerful and to lessen the tendency to worry over his condition definitely helps the body to overcome the disease. This is becoming daily more and more evident in the wards and many are the remarks of gratitude from the patients. The excellent programmes from 2YA are now well balanced to suit all tastes, and as the installation provides ear-phones for each patient, no patient is compelled to listen to any particular item if he does not wish to.

"I have no hesitation in recommending this further appeal to the generosity of the citizens of Wellington. Reports reach me from time to time from hospitals in other countries testifying to the great value of radio, and I not only heartily commend this effort to complete the installation in the main buildings, but I hope sufficient funds will be forthcoming to install a similar receiving set in the Ewart Hospital for patients suffering from tuberculosis."

In addition to the Medical Superintendent's testimony, the executive was informed by Dr. W. S. Robertson, a member of the staff of the hospital and also a member of the executive of the

"Beau Ideal"

Autographed Copies for Listeners

Mr. H. C. South, whose interesting talks on "Books—Grave and Gay" are familiar to New Zealand listeners, has arranged quite a novel competition for you all. His friend, Captain C. H. Peters, who does the book talks for 3LO, Melbourne, gave him the idea, and was good enough also to arrange for the prizes of the four autographed copies of P. C. Wren's latest work, "Beau Ideal." A new book inscribed with the author's signature is something well worth having. At any rate twelve thousand Australians evidently think so, for that was the number of entries 3LO received for their last competition. If readers will pardon the pun, this is a "novel" competition in more senses than one—there is no entry fee; a minimum of ef-

fort is called for on the part of competitors; the test of skill is a simple one in which everyone is capable of trying his or her hand; and the novels that are offered for prizes are given the novel distinction of carrying the author's autograph. All competitors have to do is to hand-print the book title "Beau Ideal" on a sheet of paper, on which must also be written the name and address of the competitor, and send it in an envelope addressed "Beau Ideal," c/o 2YA, Wellington. The four prizes will be awarded to the senders of the four entries deemed by the judges to be the best hand-printed. The competition closes on September 20 and the awards will be announced from Station 2YA on September 24.

Particularly popular among the male patients were the broadcast running descriptions of racing and other sporting events. There was intense disappointment when the Racing Conference debarred the broadcasters from entering the race-courses.

Ways and means of securing the further sum aimed at for the hospital installation were considered by the committee, and as a first step Messrs. Byron Brown and I. M. Levy were appointed a sub-committee to organise a broadcast concert to be given from 2YA, Wellington, under the auspices of the society. In this connection it is hoped to arrange that the performers' fees shall go in aid of the new hospital radio fund, for which Mr. R. Brown, secretary of the Hospital Board, is acting as secretary.

Radio Reception

Points for Listeners

THE Wellington Amateur Radio Society is embarking upon the praiseworthy policy of arranging for a series of lectures from recognised experts to be given at regular intervals to members and the general public. Following on the very successful and interesting explanation of valves de-

livered by Mr. W. M. Dawson, there will be given on the evening of Tuesday, September 11, in the Dominion Farmers' Institute Building, a lecture by Mr. J. G. R. McCarthy, of Mack's Radio, Limited, a lecture on radio reception, including short-wave work. Mr. McCarthy is a recognised expert of long standing. His radio experience extends to the early days of the art in Britain and America, and of later years to New Zealand. He has many outstanding performances to his credit, and being possessed of a breezy personality and the habit of plain speaking, may be relied upon to make his lecture entertaining and instructive. On a number of occasions Mr. McCarthy, by his skilful reception, has contributed to the successful rebroadcasting of overseas transmissions. Listeners who are interested in securing the very best possible results from their sets, and attaining a high standard in reception, are cordially invited to attend the lecture of the society on Tuesday week.

Following on Mr. McCarthy's lecture, it is hoped to arrange further meetings at intervals of approximately three weeks. In addition to the public lectures, a series of lectures will be given from 2YA by Mr. W. M. Dawson (under the auspices of the Radio Society) on subjects relating to wireless sets. Special attention will be given in these talks to the eradication of the howling valve nuisance. These lectures will be given at fortnightly intervals, and should commence at an early date.

Radio Royalties

Reduction in England

ATTENTION has been focused lately on the conditions in England regarding the sale of valves and valve sets. Up to the present every valve set sold has been subject to a royalty of 12s. 6d. per valve, payable to the Marconi Company. This has considerably raised the price of sets and made them beyond the reach of many listeners, who are thereby restricted to the use of the crystal.

The question of their reduction was introduced by the Loewe Radio Company (Germany) by an application to the Patent Office, London, for a revocation of the patent rights or for a special license to permit of their manufacture in England. They were prepared to pay royalties equal to that paid the Telefunken Company in Germany, which were not, however, as great as Marconis were collecting from English manufacturers.

It was claimed that wireless sets, equivalent to three-valve, could be produced in England for £1 10s. each and eventually at £1 5s. The wholesale price in Germany was £1 5s. and retail £1 19s. 6d. Under the existing system these sets could not be produced at less than £3 7s. 6d.

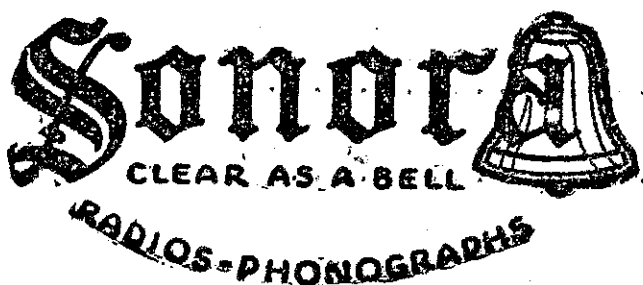
Tribunal Decides.

DURING the hearing of the application it was pointed out that the refusal of a reduction would prejudice the establishment of a new British industry, and that a commercial policy, excluding large sections of the public from the full enjoyment, was not justifiable.

In granting the license, subject to the applicants paying royalties of 10s. for each triple valve and 7s. 6d. for each double valve, the tribunal expressed the opinion that the monopoly rights were being abused.

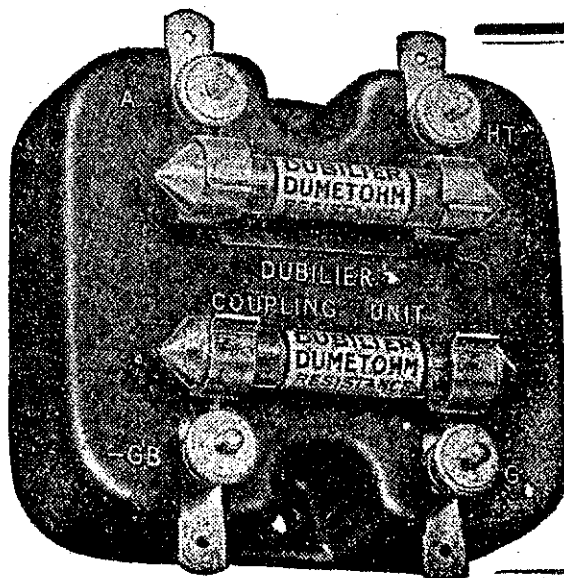
THE decision is of momentous importance to the British radio trade. It has been followed by an application by the Brownie Wireless Company for the reduction of the royalties on valve holders, from 12s. 6d. to 10 per cent. on the wholesale selling price, subject to a minimum charge of 5s. on the first valve holder and 2s. 6d. on each additional holder. This means a reduction of approximately £2 10s. on a six-valve receiver and 7s. 6d. on a single valve outfit.

The Dominion is not immediately affected by these decisions, although they may have a very definite influence on the position relating to royalties.



Call and hear the latest model SONORA. Unequalled for quality of tone. Buy a SONORA and you will really enjoy Radio!

Arrange for a demonstration TO-DAY
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RESISTANCE
CAPACITY
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7/-

This method of Amplification gives purest music—Ask for Price List.

A. E. STRANGE

404 Worcester St., Christchurch

Auckland Notes

(By "Listener.")

TUESDAY evening is "operatic night" at 1YA, and during the past months Madame Irene Ainsley and her party have provided many gems for the delectation of Auckland listeners. Much as the grand opera excerpts have been appreciated, however, they must take second place to what was presented on Tuesday last, when selections from that most popular of musical comedies, "Rose Marie," were rendered in excellent style. In the manner in which it catered for public taste, this presentation was the best that has yet been heard from 1YA. If the written appreciations were in keeping with the verbal ones which the writer has heard, the performers should feel well gratified with the result of their efforts. The operatic portion of last Tuesday's programme is one that could bear repeating at an early date.

AT the time of writing news has just arrived that the trans-Tasman flight will be attempted on Sunday night. For enthusiastic listeners there will be little sleep on the night that precedes the resumption of the daily routine of work. One listener who was intrigued by the descriptions of the Suva-Brisbane flight states that he will obtain his required portion of "shut eye" on Sunday afternoon and early in that evening, so that he may not miss a detail that may be on the air from 11 p.m. till landing time. All he hopes is that the landing will occur before toil calls. He may also pray that bad weather will not delay the venture.

FOR some days local listeners have been concerned about rumoured pending litigation over patent rights on radio apparatus. At first they foresaw additions to the annual license fee, but reassuring statements by the trade and others have calmed these fears. If anyone suffers financially it will not be the listener.

RECEPTION of 2YA has been commendably strong and steady of late in Auckland. The installation of crystal control may have contributed to this result, but the result itself is what appeals to listeners here. The Wellington programmes, too, have been keenly appreciated, many of the artists in the southern city being now as popular in the north as they are in their own district.

"THE best that anyone could wish for." This was the comment of a football enthusiast who was confined to his home on Saturday last but who did not miss his week-end diversion of enjoying football. His tribute to Mr. Meredith's description was well earned, for the description of the New South Wales-Auckland Rugby struggle was splendidly handled, and listeners could follow every rapidly-changing move in a spectacular game.

OUR first "mystery night" has come and gone. It has justified all that was promised for it. The keenest interest was evinced by listeners in a long series of varied items. Certainly some of them presented unusual difficulties of recognition, but this was essential to such a competitive event. One listener, with heart set upon winning that gramophone, adopted quite an unusual method. He watched outside

Tribute to Sunday Service

THE following incident is vouched for:—A young man, who was the black sheep of the family, who were strong Baptists, was often written to by his mother and often asked what church he attended. As he was leading a rather gay life, he could not answer his mother's question. One night he was listening-in to the children's song service and it brought him back to the days when, as a child, he knelt at his mother's knee. This made him think, with the result that on a recent Sunday night he attended a Salvation Army meeting at the Lower Hutt.

BOUND COPIES "RADIO RECORD"
1927-28.

WE have available a few bound copies of the first year of the "Radio Record." These are bound in full cloth, heavy boards, and the full volume is available at 27/6. Some of the numbers are out of stock, so that we would recommend prompt application on the part of those seeking to preserve, in bound form, our first year's issue.

Over Quarter of Million Sets in Canada

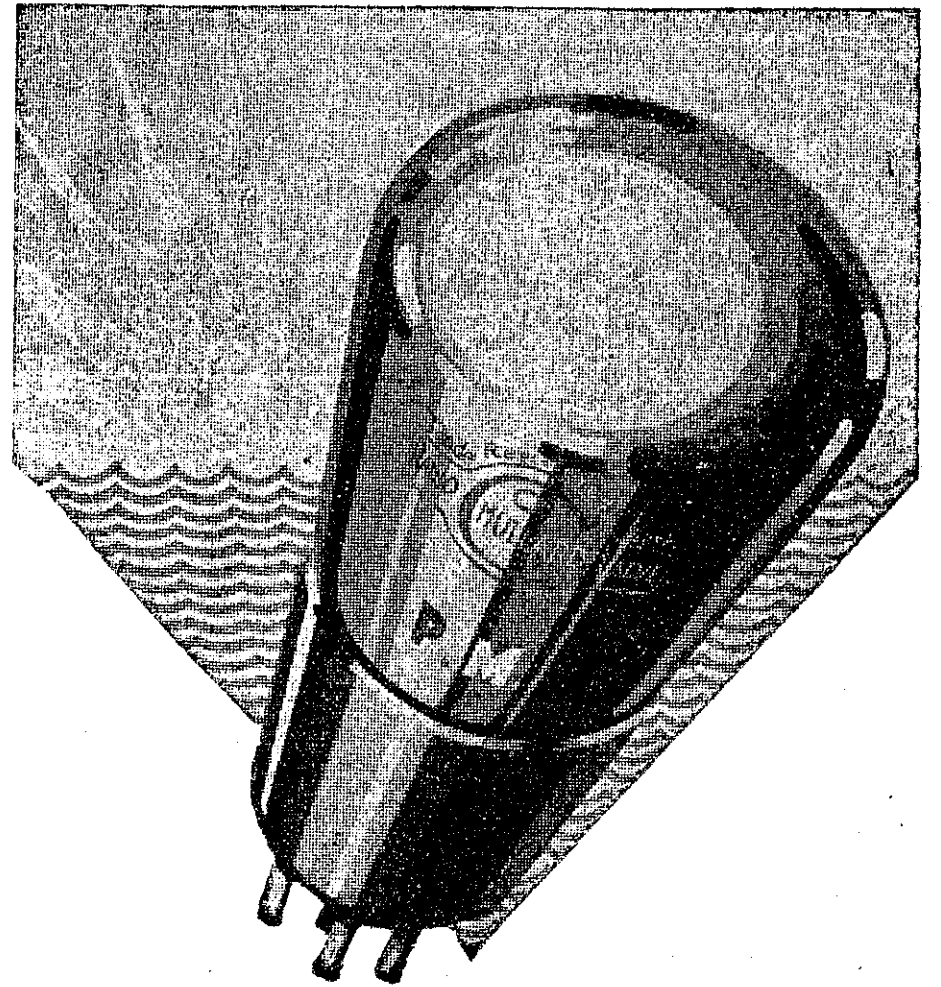
OFFICIALLY there are now 258,494 radio receivers and 91 broadcasting stations in the Dominion of Canada, according to a recent report to the House of Commons at Ottawa. Last year there were 96 stations, but five licenses were not renewed because of complaints.

The receiving sets are licensed yearly at an annual fee of 1 dollar, the proceeds from this source being used by the Radio Branch of the Department of Marine and Fisheries for research work and for the elimination of interference in all cities and towns throughout the Dominion. In spite of this, thousands of people avoid payment, and at regular intervals there is a round-up of such offenders by the Royal Canadian Mounted Police, many being fined in local police courts.

It has been intimated at Ottawa, the Canadian capital, that there are probably 50,000 unlicensed radio sets in the Dominion. This would bring the total up to the 300,000 mark.

the broadcasting studio before the commencement of the programme, and took the names of all of the performers who entered. This would certainly give him something to go on in his guessing. The announcement of the winner of the prize is now being as eagerly awaited as was the contest itself.

The All-British Valve---Mullard



**THEY BRING IN
DISTANT STATIONS**

If it's distant stations you're after, use Mullard P.M. Valves. Only then do you know for certain that the range of your radio set is as great as its circuit will allow. Don't handicap a good circuit—get the best out of it by using Mullard valves.

It's the wonderful Mullard P.M. Filament that makes the difference. Its gigantic emission surface ensures improved results and yet it consumes only 0.075 amps. Remember, too, it's "The long filament with the long life."

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Use of Radio in Education

The Broadcasting Company's Plan Covers Great Possibilities

WHILE the provision of recreation and entertainment has been, still is, and will continue to be, one of the main functions of broadcasting, the informative aspect will grow rapidly in importance. The means of communicating by what is known as radio broadcasting is such a wonderful thing that it is rapidly becoming so important a part of national and international life that, unless its place is taken by some new invention, it is likely to become one of the most powerful forces in the modern world in regard to both recreation and entertainment as well as in the dissemination of information.

There is a growing tendency among adults to look to the Broadcasting Company as the purveyor of news and information on a variety of subjects. In this respect a great deal is done by the company, but it is realised that there is as yet a vast untouched field in the

realm of education for adults as well as for children.

In respect to children, the juvenile sessions at the various stations are a judicious mixture of entertainment and education, but the amount that is done in this direction only serves to suggest what could be done in other ways if broadcasting were more fully utilised in education, especially for children.

THE Broadcasting Company has long realised that the same principle which makes the entertainment aspect of its service so greatly valued applies with equal force to the educational aspect—the voice of a great artist at the microphone in the studio can be heard by thousands of people. Literally, the people cannot come hundreds of miles to the studio to hear the artist, so the artist's voice is taken to them.

It would therefore appear that this principle might be applied in regard to the teaching of school children, especially of those in the country districts, where it is not to be expected that the pupils have the same opportunities for learning as those in the city schools have.

There are some subjects which could be admirably handled by expert lecturers speaking from the broadcasting stations, co-operating with whom would be the teachers in the individual schools. The idea is not a new one, but as it would be a revolutionary one and cause the remodelling of the whole school system in New Zealand, there is a natural hesitancy on the part of the authorities to embark upon it. That the authorities are interested it is almost unnecessary to say. The fact that a test was made from 2YA last December is sufficient proof. There are, of course, difficulties in the way, one of the principal being the cost of equipping the schools with receiving sets.

The Broadcasting Company is energetically pushing the proposal. It has advanced a proposition by which each of its four stations will broadcast a lecture or lesson of half an hour four days each week, from 2.30 till 3 p.m.

There is little need to dwell on the advantages which would result from the broadcasting of such lessons. The small schools throughout the country, from the city suburbs to the far back-blocks, would be able to have delivered to them by the best tutors available some of the same lessons as are given to the pupils of the largest and best city schools. The provision of daily lectures of this nature would give opportunities to country children which are now available only to the pupils of the city schools. The country school pupils, many of whom might be the foremost scholars in the Dominion if they had the opportunity, are entitled to all the educational aids it is possible for the Government to give them.

2YA's Quality

Who is Right?

BELOW are given conflicting views from scattered listeners regarding their reception of 2YA.

I with others consider it high time 2YA was "put on the air." If, as you state in a footnote on page 24, "Radio Record, 31/8/28, that the rated power of 5 kilowatts is being fully maintained, that is proof that the station is a failure. I can name an 80-watt station in Dunedin that will produce results in this locality that compare favourably with 2YA. Several of us enthusiasts here have tried all means we know to make sure our sets are not at fault, and were not "overloading the set," and our experience is similar. Given good conditions, with the aerial disconnected, main Aussie and 1YA and 3YA are no trouble, but 2YA is often impossible. The programmes have improved by leaps and bounds, and if the improvements are maintained we have no grouch coming. I've no brick to throw, but it is a nuisance to think that good programmes are being put on the air by 2YA and only a few close localities are able to enjoy them.—Claude P. Grey (Shannon).

Defence from H.B.

I READ with disgust letters from Hawke's Bay listeners re the bad reception of 2YA. All I can say is that these hard-to-please people should look to their sets before blaming the station. It's all very well saying that 1YA, 3YA, and 4YA come in clearer than 2YA. I would suggest trying less B battery on such a high-powered station as 2YA. I am the owner of a five-valve set, and 2YA comes rolling in as clear as a bell, practically every time they are on the air, and, furthermore, if any Napier listener wishes to prove this I invite him to come to my house any time he wishes and hear for himself. As to the programmes by the N.Z.R.B.C., all I can say is that I and others are more than satisfied.—H. R. Herford, 10 Bower Street, Napier.

Crystal Control Condemned.

WELLINGTON station has not been improved since the introduction of crystal control. Fading is more frequent and prolonged. 2YA never used to go dead out with me, but it will sometimes do so now. I have not noticed any difficulty in tuning—my machine has always been difficult to handle, and it is no worse. Volume is not noticeably different. I have always been in difficulties trying to cut 2YA down to a reasonable volume, and the same difficulty persists. Despite opinions to the contrary from H.B., I have always found 2YA clear and pure in timbre when the air was clear—no distortion, no mush. I can put out the highest or lowest note at concert hall volume and as clear as a bell.—J.C.P. (Cromwell).

Reception in Dunedin.

I WOULD like to answer Mr. D. E. Booth's letter in this week's issue of the "Radio Record" concerning reception of 2YA here. I find that since 2YA has been put on crystal control the dials of my set must be tuned exactly to the centre of the wave before you get clarity, and then you get volume and clarity in plenty. The fading

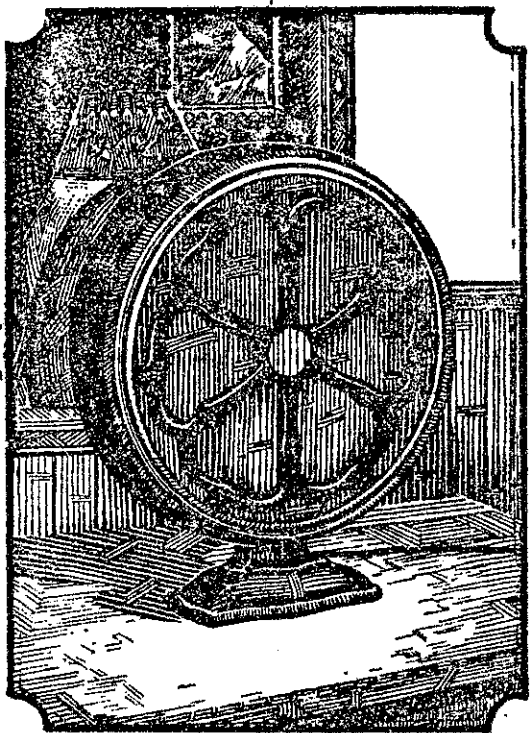
is still very noticeable at times, but otherwise reception is good. I am up on the hills of this city, so may be in a more favourable position.—J. A. Williamson.

Another Re-Broadcast

ANOTHER successful re-broadcast took place last Sunday evening when crystal set users in Christchurch heard for the first time a re-broadcast of 1YA, and thoroughly enjoyed the half-hour of concert provided by the Auckland Municipal Band under Mr. Christopher Smith. The re-broadcast is notable from the fact that the wavelengths of 1YA and 3YA are so close together, yet 3YA was able to make an excellent re-broadcast, the novelty of which, as well as the splendid music provided by the Auckland band, appealed to all listeners. The Auckland station was picked up at the home of Mr. J. M. Bingham, the chief engineer of the broadcasting company, and relayed to the studio.

DX is simply an abbreviation standing for long distance. In this way "a good DX receiver" means one which has a good long distance range, and similarly, "DX reception" is the reception of signals, music, or speech, from long distances away.

ATWATER KENT RADIO SPEAKER



Model E Radio Speaker HAS IT TONE?

The listening test of Radio is clear, natural tone. All ATWATER KENT instruments have it. Models vary. Prices vary. Tone is constant. Music, voices, when heard through ATWATER KENT RADIO are always true to life.

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BRITAIN'S BEST BATTERY

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*Will Outlast
any other Battery
of similar size*

**Sub - Agents Re-
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New Zealand.**

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Only Loud Speakers from the list below will be Posted Free

Electric Lamp House price lists will be published from time to time. This week it is Loud Speakers of Horn or Cone type with a price range of 17/6 to 130/-.

The rapid turnover of these Radio Goods is keeping price down and stocks fresh. Nothing is in our shop long enough to become antiquated.

All Radio necessities are stocked here. They can be ordered by mail with utmost confidence. Sets, parts, tools, household appliances, and lighting equipment,

Electric Lamp House

"Everything Electrical," Licensed Radio Dealers,
27 MANNERS STREET,
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Loud Squeaker Prices

Hegra (Cone)	17/6
Cannon Ball (Cone)	22/6
A.J.S. (Horn)	32/6
Sterling Dinkie (Horn)	35/-
Sterling Melovox (Cone)	42/-
Sterling Popular (Horn)	42/-
Sterling Baby Black (Horn)	45/-
Spheravox (Cone)	47/6
Amplion (Cone)	50/-
Sterling Baby Black and Gold (Horn)	50/-
Philips Baby Grand (Cone)	75/-
Ferranti (Horn)	75/-
Burndept (Horn)	105/-
Philips PCJJ Junior (Cone)	110/-
Sonochorde (Cone)	110/-
Sterling R 33 (Horn)	119/6
Philips PCJJ (Cone)	130/-

Sidelights on Trouble Tracking



UNLIKE the Post and Telegraph Department has in commission in Wellington a motor van staffed with radio inspectors, to locate and eliminate as far as possible interference in the receivers of licensees is generally known. Less well known, however, are the activities and accomplishments of this enterprise.

Commissioned in May of this year, the van has done excellent work, and many causes of disturbances have been eliminated. Many of these, however, could have been cleared up without the aid of the van, had the owners known just where to look for the trouble.

Causes of Trouble.

HOWLING valves have caused the van many a fruitless search. Through their nature they are difficult to locate, and one readily can see the difficulties of the inspectors when, being hot on the scene of a "howler," they suddenly lose it owing to its originator, tiring of distorted reception, switching on to a station within easier reach.

In this respect listeners are urged not to listen to distorted reception from a distant station. Straining the set in this matter causes howling in the receivers over a wide radius. Nevertheless, many radiating sets have been located by the van.

Severe disturbance has been caused through tramway bonds, links between

Co-operation to Suppress Interference

the rails to allow of the free flow of electricity. If, through faulty workmanship, vibration or deterioration, these become slightly defective, an arc bridges the gap, and disturbance is caused up to a distance of a quarter of a mile. Many of these seats of trouble have been found and rectified by the Tramways Department, much to the satisfaction of the listener.

Unusual Causes.

IT is surprising what will cause trouble in receivers. Recently, the van was called to a locality constantly disturbed. The direction was soon picked up and the place in question reached. On investigating, the inspector found that a faulty A.C. rectifier, when left connected to the set, was causing a disturbance so intense that all stations except the local one were obliterated.

Faults on the high tension electric power lines have been the seat of much trouble. One in particular along the waterfront at Eastbourne annoyed listeners, especially during dry weather. Strangely, during and for some time after a fall of rain, the trouble was absent. The van, on tackling this problem, located a slight leakage at an insulator.

On examination it was found that

a crust of salt was causing a bridge between the wires. When rain fell this was removed; to be replaced from the spray during fine weather.

Power lines will always give a certain amount of trouble when aerials are placed too near to them, particularly if they are parallel to them. One distressed listener complained of persistent interference.

On arriving in the locality the van was unable to pick up any serious trouble, but at the house of the licensee the cause of the trouble became apparent. The section was on a corner around which ran the city electric light mains. Parallel and close to these were the aerial and the lead-in. Both were in the magnetic field of the wires, both were picking up "noises."

The cure was obvious—a shorter aerial at right angles to one of the lines and as far removed from the other as possible.

False Alarms.

ON very many occasions the van has been called to a locality, to find no trouble whatever. Investigation has usually shown that the set of the complaining licensee was at fault. The B battery being low, faulty connections, valves or transformers, all combine to distort receivers. The

snapping of an electric switch will sometimes cause a click in the set, and if a receiver is situated near a large switching arrangement, the noise may be objectionable.

Department and Dealers Co-operate.

THERE is no doubt that the air can be practically cleared of leakage and radiation, and the Department and dealers are doing their best for the listener.

For this reason, an organisation, planned to educate the listener to the better understanding of his set, and at the same time utilise the van to a maximum, has been planned. Details are not yet available, but the plan, in essence, is that the dealers in each locality will act as intermediaries between licensee and the Department. When a complaint is made in the future, the resident dealer will be notified, who will report on the trouble, through listening through his own receiver. If necessary he will be prepared to visit the complaining owner to ascertain if the case justifies the summoning of the van.

The actual result of the co-operation of the radio trade and the Department will be that complaints of interference from electrical causes will first be confirmed, and a call will dispatch the van to the affected area to locate the trouble.

Dynamic Speakers

Identical with Moving Coil Type

MOVING coil loud-speakers are known in the country of their origin, U.S.A., as dynamic speakers. Dynamic is the name applied by the patentees, the Magnavox Company of Oakland, California, who own and control the master patents.

Little has been heard here of the dynamic speaker, but it has been manufactured and sold in huge quantities in the United States for the past two years by the Magnavox Company, and it is only now that the Magnavox Company are catching up on their orders and are able to supply for export. Owing to the fact that the Magnavox Company are producing to the maximum of their capacity, i.e., 1,000 units per day, they have just licensed

several manufacturers to use their patents for sale on the U.S.A. market only, and have decided to handle the Australasian market themselves.

The construction of a dynamic speaker in quantity on a commercial basis requires a considerable amount of knowledge and experience. This is the reason why the present Magnavox speakers are the highest quality moving coil speakers produced anywhere.

The Magnavox Company are supplying the largest manufacturers who produce the highest quality of radio sets in U.S.A. For instance: Stromberg-Carlson, Zenith, Splitdorf, Bosch, Freshman, Amrad, Gilfillan, Mohawk, De Forest Crosley, Federal. One of the above manufacturers placed a contract with the Magnavox Company at the radio exhibition held in Chicago in June for 30,000 units.

Those who have not had the pleasure of listening to a dynamic speaker cannot very well realise what a revolution in sound production has taken place by this discovery. The great feature is that there are no parts in the dynamic speaker which can rattle, and providing the in-put is undistorted the Magnavox speaker will give perfect reproduction with unlimited volume.

Magnavox dynamic speakers are produced in types to suit all classes of electrical current. There is one type operating with 230 volts A.C. which operates direct from the lighting mains. Another type which will take 110 to 220 volts of D.C. current. This type can be operated from any D.C. current available, but is primarily constructed for the purpose of operating from an amplifier of the Sampson type, from which it can be tapped off the required D.C. current. Those who have the ordinary electric light installed in their homes with the 230 volt A.C. current merely plug into the lighting socket and take the other two connections to the radio set in the ordinary way. Those who wish to operate their dynamic speaker from the accumulator may do so by using the 6 volt type.

A very effective demonstration of the perfection to which sound reproduction can be brought was given at the American Radio Exhibition in Chicago. A dynamic unit operating from 230 volts A.C. current was installed in the centre of a 8ft. square panel. This large baffle increased the range of the musical scale tremendously, and the result was that it would be practically impossible to distinguish a band selection reproduced by a gramophone from the actual performance. Manufacturers claim that the most perfect results from dynamic speakers would be secured if the speaker were mounted in the wall of a room so that the sound emitted from the front of the speaker was prevented from reaching the back of it.

Radio's Influence

ANYTHING which influences a person, consciously or unconsciously, educates. If the influence is a bad one, such as that of a person's slovenly speech, or an over-gaudy wallpaper, or even poor music, the education it gives is a bad one. If the influence is good, as in the truly beautiful, the "Ode to Nightingale," or a navvy offering his seat to a woman in a crowded tramcar, so also is the education received from it good.

For this reason it is of paramount importance that those broadcasting give us the very best they can. Their task is a greater one than satisfying the public for a definite number of hours. They are educators, and so long as we are listening-in we are being educated. Is the education beneficial or harmful? That depends on ourselves. What is our attitude to those broadcasting? Do we continually harass them for second grade, accuse them of being unable to give us what we ask, and if they refuse to badly educate us throw out our sets?

Like a general education, a musical education is acquired. Does one wishing to become educated seek the company of the uncouth or the cultured? Does one being musically educated unceasingly complain because he is put into touch with the best?

RADIO—Gilfillan and Bremer-Tully

LARGEST STOCKS OF RADIO ACCESSORIES IN SOUTH CANTERBURY.

COMPLETE INSTALLATIONS A SPECIALTY.

BREHAUT BROS.,

TIMARU AND GERALDINE.

Notes and Comments

By "Switch"

KEEN rivalry exists in a certain Wellington suburb as to who shall have the tallest radio masts. Some real skyscrapers have been stuck up and the tallest is constructed of metal piping. It is 60ft. in height and well-stayed. The owner operates a crystal set, but it gives loudspeaker reception of 2YA, Wellington.

ONE listener in the suburb referred to essayed to erect a metal pipe mast on top of his shed. This mast was going to eclipse everything in that vicinity, but an assistant made a slip in steadying the mast, which went crashing to ground. A neighbour's roof received some damage, but the mast got the worst of it.

THE height of an aerial makes a noticeable difference in the volume of reception, and many a crystal set owner resident around Wellington would obtain infinitely better results if he would raise his aerial to 30 or 40 feet above fences, sheds, etc.

THE fact that so many crystal set owners attach so little importance to the height of their aerial is evident in every suburb of Wellington. The raising of an aerial just above the screening effect of a neighbouring tree or house will often give an increase of double or treble the volume of reception.

ACCORDING to the latest news from Melbourne, Station 3LO of that city, for the twelve months ended June 30 received a revenue, from its share of license fees, totalling £90,000. The declared profit for the year ended June 30, 1928, was about £7000. High fees have been paid for artists and lecturers. One noted aviator received £50 for a few minutes' talk before the microphone.

THE shareholders in 3LO Melbourne, which has a nominal capital of £100,000, are: Farmer and Co. (Sydney), 40,000 shares paid up to 17s.; J. C. Williamson and J. and N. Tait, 40,000 shares paid up to 17s.; the Melbourne "Herald" and "Weekly Times," Ltd., 15,000 shares; and Buckley and Nunn, Ltd., 5000 shares.

TALKING to an official in a position to know, the writer was told that some of the worst electrical interference experienced by broadcast listeners around Wellington was due to faulty bonds connecting tramrails to one another. The tramrails are bonded together to form an electrical circuit, and when one of the bonds becomes loose it permits a leakage, thus causing the roaring noise heard in neighbouring loudspeakers.

A VISIT to a household where there is a radio set and young children, will quickly convince anyone of the delight obtained from the children's session. Little tots sit around the loudspeaker listening with wrapt attention to the entertaining chats by the "uncle" and "aunt" officiating in front of the microphone. The writer lately witnessed such a scene. Three mites with alert ears and wondering expressions on their faces, absorbed all that issued from the loudspeaker with indescribable interest. It is rather a pity that broadcasting "uncles" and "aunts" cannot see their audiences.

REMARKABLE juvenile talent is displayed during the children's sessions from 2YA Wellington, and their efforts appear to stimulate the spirit of emulation among many of their little listeners. Instances are not infrequent in which youngsters have taken a fresh interest in their music or poetry after hearing other kiddies from 2YA.

A RATHER clever sketch was published some time back showing a horrified father entering a room to see his enterprising kiddie, hammer in hand, sitting on the floor examining the insides of a demolished radio set. In answer to the obvious exclamation of the bewildered parent the child explains that he has been looking inside the radio for the dear, kind uncle who tells the nice fairy tales every evening!

SOME soulless, carping cynic voiced his opinion in print some time back that the really harmless pretences by the broadcasting "uncles" and "aunts" tended to teach children to lie and foster an inclination towards deception. Who of us in our early childhood days did not obtain pleasure from the "land of make-believe"? Was not that old deception "Santa Claus" a joy and happiness to us? Many of us would like to live those days over again when fairies and gnomes were very real to us—just for one hour!

A LISTENER residing near the city tramlines states that each tram passing causes interference, and desires to know of the most effective cure. The most effective cure is to change one's residence. Interference due to the proximity of trams cannot be effectively overcome any other way. A listener friend states that he gets his best entertainment from the Australian stations when the trams have ceased running, as his aerial is only twenty-two yards from the overhead wire of a busy tram route.

WHEN undue crackling is heard from a receiving set the trouble is often found to be due to exhausted dry B batteries. A voltmeter test should tell you whether your B batteries have finished their span of usefulness. Once a 45-volt B battery has dropped to 35 volts it is ready for the dust-bin. They have lost their "pull," and cause noise like static.

THE British Broadcasting Corporation is forecasting the possibility of being able soon to broadcast a picture of any event four minutes after the station receives the finished picture. For many months the corpora-

tion has been experimenting with the reproduction of pictures by wireless, and it is considered that success with "still" pictures will be the forerunner of the establishment of regular radio movies. It is reported that several Australian experimenters are interested in the scheme, and its adoption in England will only precede its inauguration in Australia by a few months.

A MELBOURNE journal says: "Mainland listeners must have noticed the very much improved reception from 7ZL, Hobart." As a matter of fact, New Zealanders have noticed that reception from 7ZL, Hobart, went to the pack many months ago, and has not exhibited any signs of returning.

A N Australian writer says: "The signals from the Southern Cross were as strong and clear as ever when she went on her non-stop run to Perth recently, but the wavelength had been dropped from the 33.3 metres that was used on the trip from America to 32.5 metres, and was much more subject to interference from amateur stations. However, this time they were all on the look-out for the signals, and when they found them in their midst, kept well clear. The call sign KHAB, under which she worked on the trip out here, was augmented by the Australian call-sign VZGY, and she will probably always use this latter call now."

IF the best sites for the proposed relay stations in Australia are to be successfully selected a good deal of work is ahead of the Commonwealth experts. As an indication of the importance attached to the matter of determining the proper place to put a new station by the British Broadcasting Corporation it is noted that a special portable transmitter on a motor truck is used for the purpose of locating the proper position of a new regional station worthy of London. The portable transmitter was used for several weeks, engaged in making best transmissions from various points. At the same time special measuring receivers were used so as to note the effect of the test transmission in different localities. The complexity of the problem of putting up additional stations will thus be realised.

FOLLOWING American practice, the Coronation Hotel, Sydney, and the Carlton Hotel, Brisbane, have been equipped with elaborate radio installations, with speakers, in each bedroom, in the proprietor's private suite, the public saloon, lounge bar, and dining room. Reception is obtained on six-valve sets, and amplification is carried out on a push-pull system. In use, the installations render equally satisfactory speech or musical reception on one speaker or on all speakers simultaneously, without any increase or diminution of volume. Guests in each room of the hotels can hear the radio at any time by simply pressing a button at the bedside, as the set is always tuned in to one or other of the Australian broadcast stations. One of the chief uses of radio in hotels is to receive sporting results immediately an event is decided, and to provide music for the entertainment of guests.

A SPECIAL "old folks" programme has lately been broadcast in Mel-

bourne as a midday session. This idea is not at all a bad one, and even half an hour for old folks inserted in an evening session once every quarter would find wide appreciation. Many of the old-time songs and an occasional recitation of other days would entertain the younger generation as well as the old folks.

NUMEROUS listeners in New Zealand closely follow the wrestling bouts described by 3LO, Melbourne. Next Saturday the first of the elimination contests to decide who will be given the opportunity of wrestling Ted Thye for the much-disputed light-heavy-weight championship of the world will be described by Eric Welch, 3LO's special sporting commissioner. Eight wrestlers have been chosen to take part in the elimination series, in which a wrestler will have to be beaten only once to lose his chance of a title bout. The wrestlers chosen are Clarence Ecklund, "Ad" Santel, "George" Zarynoff, "Mike" Yokel, "Pinkie" Gardiner, Hugh Nicholls, Billy Meeske, and John Kilonis. When all but one of the eight have been eliminated, the remaining one will wrestle Thye for the championship somewhere about Cup time.

IN Australia a suggestion has been made for the holding of a competition for writers of short stories which are suitable for broadcasting. The sine qua non of a broadcast story should be that it does not exceed ten minutes in the reading of it.

FOR the Sunday afternoon concerts 3LO, Melbourne, not infrequently employs a gramophone, not an electric pick-up as is the general practice at broadcast stations.



Don't run risks. Make assurance doubly sure. Get the Airplane broadcasts all the time with an Emmco B Battery Eliminator.

From £10/10/- up



N.Z. Distributors: Abel Smeeton, Auckland; Thomas Balinger, Wellington; L. B. Scott, Christchurch.

Exide BATTERIES

MEAN DEPENDABILITY.

Installed at 2YA Wellington.

All sizes. From 9/- each.

EXIDE SERVICE STATION

79 Kent Terrace, WELLINGTON.

The Woman's Point of View By "Verity"

Links of Empire

THOSE listeners fortunate enough to hear Miss Winifred Guy's educative and fascinating talk over the air at the children's session at 2YA recently, will be interested to know something of the personality of this feminine pioneer of the poster. Brown of hair and eye, entirely lacking in the voice declamatory and the gesture aggressive, Miss Guy tells a tale of sailing the seas, wandering the wide ways of the world, gathering her sheaves en route, as exemplified in her posters, such as perchance we ne'er shall look upon the like again.

LISTENING to her tale of effort and achievement, the psychological aphorism, that what you think you become, takes on added force. Of a tentative ambition, a hope born and nourished in the heart of a child, has evolved the hazardous, but eventually successful, grappling with difficulties of a new idea, a try-out, so to speak, of a hitherto unexploited medium. A childish hope to see the world beyond, frowned on by obdurate family, kept steadily in view through an interval of teaching school, where instruction was presented through the eye as well as the ear, finally materialised in the collecting of advertisements of the scenic loveliness of many lands, involving long roving in strange surroundings among many creeds and classes. As a result, for our delectation we now have unique opportunity of viewing the beauty and wonder of Europe, America, and the lovely land that we of the Dominions call Home.

ACCUSTOMED as we are to frank ugliness and vulgarity of picturisations that sprawl crudely over landscape of town and country, we rejoice to find our gracious and appreciative Prince of England expressing himself in accord with and admiration of Miss Guy's venture; and ready to acclaim the wide scope of the exhibition and its potentialities for memorable setting forth of the resources of the Empire, commercial, industrial and scenic. Finally, by way of practical and sympathetic interest, H.R.H. presented Miss Guy with official photographs, to be used as she thought fit, of his recent tour of Australasia, still vivid in the memory of his devoted Dominions.

CHATTING over the fire of logs in the small and colourful studio, where hang wonderful examples of present-day posters; clad in black velvet cunningly cut and girdled with quaintness of steel and blue, Miss Guy expressed admiration of our bays and islands, the loveliness of the environs of Wellington, and appreciation of kindness and courtesy extended to her by the advertising world, and others reasonably awake to the advantages of telling the tale of our country to a wider audience, made possible by association with so accomplished an exponent of advertising art. Men she has found notably interested and help-

ful, the feminine faction showing itself more wary and not prone to kindle to appreciation. It was different in Australia, she commented, where—more temperamental and enthusiastic—they rapturously applauded a rising star, a new occupation for women as well as men, and a fascinating study leading far from parochialism that is apt to descend upon those unready to welcome new facets of the social whirligig. Greatly entertained was Miss Guy by our sisters over the Tasman, interviewed and feted by public and



Press, and her tour a triumphant one taking her to many a lonely outpost, where her vivid views of English countryside must have brought poignant nostalgia to many an exile from the Old Land.

TO the originator of an idea which holds infinite possibility must homage be given, and good wishes for further venturesome blazing of picturesque trails.

Books

The Poor Gentleman. (Ian Hay.)

ANOTHER of the series of charming novels we owe to Major Beith, which are like a fresh breeze of cheer blowing across the sometimes unhealthy garden of post-war fiction. A blinded officer of the Great War is the narrator of the story and its unconscious hero. A type we all know and some of us love, immediately he is entered upon our list of fictional friends. Peacefully begins the tale in a London Park, where the Poor Gentleman, as the playing children call him, makes the casual acquaintance of that genial Cockney, Alf Noseworthy. A nice little chap is Alf, trying hard to improve his English accent by a course of How to Speak Correctly, having aspirations to shine on the stage, instead of sticking to his legitimate job of wireless mechanic, and a clever one. His yearning for the higher life leads to strange association with a gang of American Communist scoundrels, posing as British film producers, by whom battle, murder and sudden strikes are engineered with almost complete success, and they find the unwilling, efficient Alf a valuable aid in fitting up a broadcasting station to assist their villainous schemes. Him they imprison in a sinister moated grange, whither through their machinations are held up the blind major, the girl of his heart, and Nigel, that amusing sprig of impertinent post-war youth. Their incarceration and eventual emergence make intriguing reading, there are capital thumb-nail portraits of all sorts and conditions. Alf and his Edna are much to our taste, and that fair and frank English family with their holiday resort near a casino. The broadcasting element is introduced skilfully, tending to make this good story still more up to the minute: the American girl is frank and kind, and almost good enough for the blind soldier, who wins her heart and ours, while through the story runs a gay, sweet quality of the unconscious courage of the teller of the tale.—R.U.R.

To Avoid Breaking Machine Needles.

EVERYONE knows the annoyance and delay caused by breaking a machine needle when passing over a pin. Place the pins at right angles to the seam instead of along it. The machine needle just jumps them or slides off the curved sides.

Furniture for Babies

THE present age has been called, with reason, the golden age of the nursery folk, for everyone is anxious to make them comfortable and happy. Their very lessons are made amusing, and their environment is planned with the idea of training them to form artistic ideals, and to cultivate good taste.

In a well-known English furniture store are being shown miniature reproduction Tudor armchairs for the nursery chairs that would not look out of place in mother's drawing room or dining room should there not be sufficient house space to give the young person a room all to himself.

There is a small Tudor oak chest, too, which would look at home in any drawing room. It is really a toy-box to hold those toys which would otherwise be inevitably hidden away by Miss or Master Two-to-Eight-years-old under chair or chest of drawers, or in the sideboard cupboard of a nurseryless home.

The modern furniture designer, by way of being a clear-sighted educationist, for he realises that Miss or Master Two-to-Eight-years-old needs amusing as well as instructing in the canons of good taste.

So we see amusing wooden chairs which can be used in the house or in the garden. The sides are carved and painted into two realistic-looking baby elephants, which hold up between them the ledge of wood which forms the seat.

Even more fascinating to the small person is the bear painted in natural colouring which serve not only as a chair but as a toy box as well.

In these days of restricted house space perhaps it is as well to train a child's mind early to the shifts, subterfuges and camouflages necessary to the bed-sitting room idea in order that he may be able to plan his own perfect bed-sitting room when he grows up.

So for the room which must do duty as both day and night nursery—the nursery bed-sitting room in fact—one furniture maker is showing miniature oak dressing tables with drawers at each side and recesses at the top for brushes, combs, and other toilet necessities with a mirror at the back, which can be shut down like the lid of a box over these recesses to form a writing table when shut.

Manners'

IN a crowded tramcar a stout gentleman has squeezed into the seat vacated for him by a polite youth.

Stout Gentleman: "Where are people manners nowadays, I like to know? Everyone for himself, that's what it is!"

Straphanger: "Well, governor, you've got nothing to growl about, anyway. You've got a seat."

Stout Gentleman: "I know I have, but what about my missus down there? She's been standing ever since we got on."

Tonking's Linseed Emulsion
is a Certain Cure for Coughs and Colds

The Woman's Point of View

Annotations of Annabel

DEAREST:

In Mr. C. K. Munro's comedy, "At Mrs. Beam's," lately presented for its elect by the Wellington Repertory Theatre Society, the denizens of the ubiquitous boarding-house live and move before us. With a reminiscent shudder one listened to the verbal spate that poured from the lips of the voluble Miss Shoe—played with extreme realism by Mrs. Coleridge, who entirely shed her own identity in that of the exhausting spinster—and pondered why it is that the same kind of people congregate in the same kind of place.

THE merit of Mr. Munro's plays lies in that factor. Not dramatic or melodramatic, except here and there, the presentation of faulty humanity in some of its least attractive phases is well and wittily accomplished. In the recent presentation, Mr. Morris Dunkley, as the drab and droning failure, pottering in and out, trying to tell his silly story and talked down by everyone, was competent and convincing. He always is. Never have I seen this versatile member of the Society in a part where he failed to achieve credibility.

EACH to his taste, and some of us liked best the portrayal of Mr. Ian MacEwan of a crook who, for reasons that might be clearer, is "wanted" by the police of three continents, and stalked and suspected by Mrs. Beam's boarders, albeit they find him too fascinating for words. Mr. MacEwan's stage appearance is entirely in his favour, he moved and acted with considerable distinction, always occupying a right place in the picture, and speaking his lines with attractive enunciation and a sufficient modicum of cynicism. To him and to Mrs. Coleridge much kudos is to be accorded; the latter, as already suggested, giving notable performance of a difficult role, upon which hangs much of the success of the comedy.

MISS Marjorie Statham had a difficult and dramatic row to hoe, and remarkable success was achieved. So outstanding were conception and interpretation that it is safe to predict a distinguished future if a histrionic career is embraced. Artistically made up, garbed with vivid picturesqueness enhancing dark and intriguing beauty, entirely graceful in swift and sudden gesture, Miss Statham used her delightful voice and obvious facility to striking purpose. So good was her performance that one expects her to do much better, and of a surety the wider world some day will applaud her talent.

MISS Butts looked and acted as we would expect Mrs. Beam to do, wearing blackly beaded silk of ancient cut, its ample folds traditional as the aspidistra and glass case of flowers on the mantelpiece, Mr. James was sufficiently unpleasant as an unbelievably rude adolescent, Mr. Jasper Baldwin absolutely unconvincing as Colin; while Mrs. Patrick Marshall used Irish brogue with commendable audibility and aplomb, the while she wore an enviable coat, a "mixed grill" of brocade and glittering silver, stoled with ermine and posied in scarlet, eminently dignified and becoming.

THE Masonic Hall was crowded with the world of the intelligent-sia, accompanied by his wife; and the progress of the comedy was followed with a receptive attention that gave fresh indication of the notable revival of interest in plays and players that is so marked a sign and token of latter post-war years. This is all to the good, and if Mr. Edgar Wallace does get rather too large a share of the theatrical "loot," 'tis because he appeals to the masses, who by force of numbers hold within their dispensation the loaves and fishes of temporary success.

GOOD taste or bad, 'tis all a matter of opinion. Some there be who

prefer the execrable jazz; others despise Wagnerian magnificence, find Stravinsky adorable, and abjure all but the modern. Many a friendship is like to split upon relative merit of Mr. Galsworthy, Clemence Dane, or some raucous exploiter of the crook. Evadne, that charming flapper, collects unto herself literature pertaining to things Chinese, her library ranging from lore esoteric and Buddhist to the attractive tales of mixed marriage by Louise Jordan Miln. For those who wander in the outer darkness of literary doubt, I commend the following jingle of a famous raconteur:—

There's Conrad and Kipling, James Stephens and Moore,

Hudson and Masfield are names to conjure;

Sheila Kaye-Smith and the great R.L.S., And last, but not least, the author of "Tess."

James Barrie and Chesterton—minus the joke—

With Huxley and Machen together we'll yoke;

Plus William McFee, with his tales of the sea,

Complete with the verse of Yeats—W.B. Your

ANNABEL LEE.

Every day is born into the world, comes like a burst of music, and rings itself all the day through; and thou shalt make of it a dance, a dirge, or a life march as thou wilt."—Carlyle.

For Sandwiches

Cheese Butter.

THIS is very tasty spread on cream crackers. Put into a double saucepan 2oz. of butter, 4oz. grated cheese, and half a teacupful of milk. Season well with salt and pepper and a little made mustard. Stir over low gas till well mixed and the cheese dissolved, then turn into pots; it will keep in a cool place several days.

Tomato Cream.

THIS is much easier than slicing fresh tomatoes, and just as welcome. Scald ½lb. of tomatoes, peel them and put in a pan with 1oz. of butter. Stew gently for ten minutes, then add a slice of crumbled white bread, a beaten egg, and seasoning to taste. Cook for a few minutes, then pot; when cool, pour a little melted butter over the top.

Salmon Paste.

FAR superior in flavour to the ordinary bought kind. Remove the skin and bone from half a small tin of salmon. Pound until smooth, then add 1oz. of butter, and a slice of finely crumbled bread; add salt, pepper, and a little vinegar; put into glass jars and cover with melted butter. M.F.

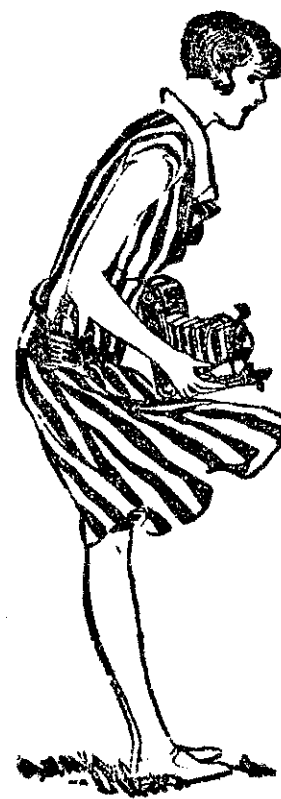
Hints that Help

Repairing the Carpet Sweeper.

DO not throw aside the carpet sweeper because the wheels are worn. Bind the wheels with adhesive plaster to the former thickness, and the sweeper will run smoothly again.

Longer Life for Wash Leathers.

WASH leathers go into holes when kept hanging up. They get dry, and when stretched naturally tear. I now have mine kept in a jar of water under the sink. This trebles its life and it is always ready for use.



Have you got Your Kodak yet?

It's fun to Kodak and there's lasting pleasure in the pictures themselves. Those snapshots will mean more to you every time you open the album. You can learn to use a Kodak in half-an-hour.

Kodaks from 30/-
Brownies from 10/6

CAMERA PRICE LIST FREE

OF ALL KODAK DEALERS

TAKE
Pulmonas
RELIEF BY INHALATION
FOR COUGHS
AND COLDS

Features of Next Week's Programmes

1YA Notes

DIVINE service for Sunday evening will be relayed from St. Andrew's Church, the preacher being the Rev. George Budd, and the organist, Dr. Neil McDougall. This session will conclude with a gramophone lecture-recital by Mr. C. B. Plummer, who is well-known in musical circles in Auckland.

LOVERS of musical comedy will look forward to Tuesday evening's performance when Madame Irene Anisley's Quartet will present excerpts from Fraser Simpson's "Maid of the Mountains." The excerpts will include the most well-known solos and and concerted items from the comedy. The quartet will have the assistance of a specially trained vocal chorus under the guidance of Madame Irene Anisley. The soloists will also be heard in a number of light ballads. Instrumental items will be performed by the Auckland Trio and Mr. Cyril Towsey (pianist). The Majestic Theatre Orchestra will also be heard on relay from the Majestic Theatre. "Early Ventures in Trade" is the subject upon which Mr. A. B. Chappell will speak in continuing his talks on "Old New Zealand."

WEDNESDAY evening's programme will consist of grand organ selections, broadcast from the Auckland Town Hall, where the city organist, Mr. Maughan Barnett, will render a programme of popular and classical items. This will be followed by a gramophone lecture-recital by Mr. Karl Atkinson, of the Auckland Gramophone Society. During the early evening session on Wednesday, Mr. Norman Kerr will continue his talks on physical culture.

THE main vocalists for Thursday's variety programme will be the "Casino Quartet," who will contribute quartets and solos. Ingall's well-known Hawaiian Orchestra will be heard in a number of Hawaiian melodies and popular airs, while Messrs. T. Harris and J. Mackle will be associated in a scene from the "Merchant of Venice" (Shakespeare). Instrumental items will be provided by the Auckland Trio and Miss Ina Bosworth (violiniste), while humour will be dispensed by the "Hebrew Two" in a conversation on "Evolution."

CONTRIBUTING the major portion of Friday's programme will be the St. Andrew's Quartet in solos and concerted items, including a number of excerpts from Gilbert and Sullivan operas. The instrumentalists will include among others, Miss Molly Wright (cellist) and the Auckland Trio.

"John Ireland"---Lecture-Recital at 1YA

THE modern British composer, Mr. John Ireland, is the subject of a musical lecture-recital to be given by Miss Margaret Herald, L.A.B., L.R.A.M., on Friday, September 21. The arranging of this lecture is in accordance with a suggestion from the 1YA Musical and Dramatic Committee.

Miss Herald is a keen student of Ireland and

during her lecture she will play two pianoforte solos and sing two soprano

numbers, the work of this composer.

The subject of the lecture-recital, John Ireland, was born in 1879, his father being a well-known Manchester journalist. Ireland attended the R. C. M. (1893-1901) and is one of the many composers who owe their training to Stanford. He has written much instrumental music



MISS HERALD

—Photo Andrews.

and upwards of fifty songs. Of his songs, "Sea Fever" has attained the widest popularity.

OUTSTANDING on Friday's programme should be two one-act comedy sketches of "The Plumbers" and "A Want of Harmony," produced by the Auckland Comedy Players, under the direction of Mr. J. F. Montague.

CATERING for the lighter taste on Saturday evening, the well-known Lyric Quartet will perform a number of popular quartets and solos, including "Ukulele Dream Girl" and "Some Folks Say." Mr. Alan McElwain will again contribute humour for the evening, while banjo and concertina items will also be performed. The programme will conclude with a relay of dance music from the Masonic Hall, played by Bendall's Collegians, under the direction of Mr. Edgar Bendall.

THE Church of Christ will provide the evening service to be broadcast on Sunday. The preacher is Mr. E. Aldridge, the organist Mr. K. Knowles, and the choirmaster Mr. W. Thomson. This will be followed by a relay of the Auckland Municipal Band concert in the Auckland Town Hall, the band being under the baton of Mr. Christopher Smith.

2YA Notes

ON Monday evening, September 10, the Ariel Singers will again be heard from 2YA in another of their varied and artistic programmes. Vocal and concerted items will include compositions by Roger Quilter, Edward German, Donizetti, dell 'Acqua, Blumenthal and others.

Supplementing the Ariel Singers will be Mr. Ernest Short (baritone), Mr. Stanley Warwick (elocutionist), and Mr. H. Temple White, who will be heard on relay from the organ of the Taranaki Street Methodist Church.

THERE are several request numbers on the programme to be given by the popular Orpheus Quartet on Tuesday evening. They include "Softly Awakes My Heart" from "Samson and Delilah," to be sung by Mrs. Alice Harris; "Meadowsweet," by Miss Lily Mackie; "The Four Indian Love Lyrics" to be sung by Mr. Len. Barnes, with orchestral accompaniment. Mr. Arthur Coe will sing two numbers, "Good Speed you, dear" by Del Riego, and "Swedish Love Song" by Morgan. Ensemble numbers

are "Hail to the Chief" and "Ciribiribin," a vocal waltz.

Other contributing artists will be Mr. Billy Hart and Mr. Doug. Stark, specialists in their respective spheres and always welcome. The programme will also include a specially prepared gramophone recital presented by E. J. Hyams, Ltd., the Wellington distributors for "His Master's Voice" records. The recital will comprise gems from the very latest releases.

ON Thursday night the band items will be interspersed with vocal numbers by the talented Lyric Quartet. Their concerted offerings will consist of both grave and gay quartettes. The opening number will be that delightfully harmonised selection by Dudley Buck, "In Absence." Then will be rendered those humorous part songs, for which this quartet is noted, "Go Ask Papa," "We laid our little one away," and "They Kissed." The concluding item will be the "Negro Lullaby," that song with which many a slave woman crooned her infant to sleep, in the days gone by. The humorous duet "Ballad Singers," will be rendered by Messrs. Williams and Goudie. The solo items will also be of a very high order. Miss Effie Brice will contribute elocutionary numbers, and the instrumental portion of the programme will be provided by the Wellington Municipal Tramways Band.

BY request, the duet, "O Fairy Wand, Had I the Pow'r," will be sung by Miss Gretta Stark and Mr. Ray Kemp on Friday. This number proved a great success when sung by these artists recently. Miss Stark is singing "On Mighty Pens" from Haydn's Creation, and Mr. Ray Kemp will be heard in two very fine numbers, "King Charles" and "Chant Arabe," by Bemberg.

TWO beautiful songs have been chosen by Mr. Frank Skinner, "Mignon" and "Sylvelin." Miss Rita Arnold will sing the famous "Habanera" from "Carmen," a song of love and defiance. From the "Legend of Nerbudda" will be heard a beautiful scena—Miss Arnold as "Nerbudda," Mr. Frank Skinner as "Morning Breeze," Miss Gretta Stark as "Johila" and Mr. Ray Kemp as "Sone." Nerbudda has been jilted by her lover, "Sone," who falls in love with the slave "Johila." The Morning Breeze, as he floats by, tells Nerbudda of her fate. The scena ends with a very beautiful quartet. Mr. Lionel Finch will be heard in selected elocutionary numbers.

IN arranging their programme for Saturday, the "Melodie Four" have not overlooked the fact that people who remain at home on Saturday evenings desire light music, after their week's labours. "Lay my head beneath a Rose," as harmonised by Mr. Frank Crowther, will be the open-

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ing concerted number, to be followed later by a bracket of two very popular modern songs, "Blue Skies" and "So Blue"; also arranged by Mr. Crowther. In response to the request of the Dunedin listeners the quartet will render "Johnny Schuaker," a very old German part song. The solo items will be up to the usual standard. Mr. Tichener, the popular comedian, will provide the humorous element.

3YA Notes

MUSICAL circles in Christchurch were grieved last week by the news of the death of Mr. E. C. Derry, founder and conductor of the well-known "Derry's Military Band," a very popular organisation in Christchurch and which has been appearing regularly at 3YA to the great pleasure of all listeners. The military band was a hobby for Mr. Derry, who won his first cornet championships when he was sixteen years of age and who retired undefeated. A single man, Mr. Derry retired from the Railway Department ten years ago, since when he has devoted his time to his band. "Derry's Band" will continue to be heard from 3YA, listeners will be pleased to learn, and they can look forward to another of the usual bright and varied programmes on Monday evening.

MR. JOHN TAYLOR will make one of his rare appearances at 3YA on Monday evening. He has a splendid baritone voice, and is sure to delight listeners with "Dear Pal o' Mine," "The Flight of Ages," and "The Trumpeter." Another vocalist who is also certain to please will be Mrs. Bessie Stewart (nee Miss Bessie Owles), well known on every concert platform in Christchurch. Miss Muriel Johns, always a favourite performer at 3YA, will be contributing more of the latest and brightest song-hits on Monday.

"WHAT shall we do with our boys and girls?" a momentous question which faces every parent and to which all too many given not sufficient thought, will be the subject of a talk by Mr. Mark Rolls on Monday.

OF a miscellaneous character will be Wednesday evening's programme. A very select programme has been ar-

Musical Comedies for 3YA and 4YA

MUSICAL comedy to-day is probably the most popular form of theatrical enterprise. Opera, drama, and vaudeville each have their own devotees, but musical comedy makes its appeal to followers of each of these forms of entertainment.

Two such productions are on the programmes scheduled for next week—"Going Up" (by Hirsch), at 3YA on Friday, and "Kissing Time" (by Caryll), at 4YA on Saturday.

Of all the English composers of this tuneful type of entertainment, none, perhaps, has excelled Ivan Caryll, who has demonstrated repeatedly that he possesses a wonderful ability for creating light music of sheer beauty. This was evident in the earlier works he wrote or collaborated largely in. "The Girls of Gottenberg," "The Pink Lady," "Our Miss Gibbs," and numerous others, although written many years ago, still live, and will doubtless bear revival far into the future. As rich in tuneful songs as his older works are, Caryll's creative genius has developed with the years, his later plays revealing matured ability. Of these "Kissing Time" is a brilliant example, for every number in the book is unexcelled for rare beauty of melody. Each of the fourteen songs, and the concerted numbers opening and ending the two acts, possesses its own particular style, but never once through the play is the quaint lilting melody lost in the music.

ranged in which the majority of the songs to be sung will be comparatively little known. There will, however, be a sprinkling of old favourites, which will range from a plantation song to operatic excerpts. The elocutionary items on Wednesday evening will include a Shakespearean comedy sketch, in which Mr. W. H. Moses, as Gobo and Mr. Hiram Dunford, as Lancelot Gobo will take part. Other recitations will be given by Mr. Dunford.

A NIGHT of grand opera excerpts is scheduled for Thursday evening, the vocalists being the members of Madame Gower Burns's party. "Lucia di Lammermoor," "Il Trovatore," "La Boheme," "Un Ballo in Maschera," "Cavalleria Rusticana," and "Rigoletto" are among the works from which solos or quartets have been chosen.

ANOTHER feature of Thursday evening's entertainment also will be a further appearance of the Studio Orchestra, under Mr. Harold Beck who will present another very pleasing programme of bright and engaging selections. Elocutionary numbers will be given by Miss Winifred Smith.

A SOUTH Sea Island love story, "Swandalaya" (by Townsend), is one of the recitations to be given by Mr. R. R. Wills on Friday evening. His other items will be two humorous ones in which a German and an Italian respectively will be the principal characters. The Radiolians have chosen "Going Up," the very popular musical play by Hirsch, for presentation on Friday evening. This play abounds in good tunes, both solo and concerted, and the radio production should be one of the most enjoyable the Radiolians have given. "Going Up" will occupy the major portion of the evening's programme.

ON Saturday evening 3YA will re-broadcast 2YA's week-end concert. Sunday evening's after-church concert at 3YA will consist of a gramophone recital, electrically reproduced.

4YA Notes

BAND night at 4YA on Tuesday will be up to the high standard which has been set. An abundance of tuneful music will be presented by the St. Kilda Band, under the baton of Mr. James Dixon. One number of particular note will be the ever-popular air

with variations entitled the "Harmonious Blacksmith." An extremely pretty intermezzo, "The Bells of St. Germain," by the German composer Meiner, will also be a feature of the programme.

SOME leading local talent has been engaged to provide the vocal and elocutionary portion of the concert on Tuesday. Two songs, popular with the older generation, will be presented by Mrs. D. Carty, namely, "Where the River Shannon Flows" and "The Old Rustic Bridge by the Mill." Miss Bertha Rawlinson, possessor of a sweet little soprano voice, will render Alfred Hill's "Waiata Maori" and "The Spinning Wheel." Other vocalists will be Mr. L. E. Dalley and Mr. Bert Rawlinson.

CHEERFULNESS will be the keynote of the programme from 4YA on Wednesday evening. Bright tuneful songs and instrumental music, comic songs, patter and humorous sketches will constitute the bill of fare. Mr. Buster Brown (Scotch comedian) will tell about the "Wedding of Sandy McNab," and will discuss the virtues of "Bonnie Leezie Lindsay." He will also assure you that "It's Nice to Get Up in the Morning." Mr. Chris. Harrie, the Lancashire comedian, will demonstrate "How We Laugh," and will sing and patter about "As Soon as They Heard My Voice" and "It's a Bird." Paul Ruben's song, "Here's to Love," will be sung by Miss Betty Roberts, along with a popular little hit of twenty years ago—"Grow, Little Mushroom, Grow." Three of the latest popular songs will be sung by Miss Thelma Blackman.

FRIDAY evening's concert at 4YA will consist of studio items for the first hour, followed by a relay of dance music from the Savoy. Miss Mollie Vickers (mezzo-soprano), and Mr. L. M. Cachemaille will be the vocal artists.

ON Saturday night the 4YA Harmonists will delight listeners with a presentation of the vocal numbers from "Kissing Time," and a most enjoyable evening should result. Between the acts of "Kissing Time" on Saturday night, instrumental music will be broadcast.

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Sunday, September 9

1YA, AUCKLAND (333 METRES), SUNDAY, SEPTEMBER 9.

- 3 p.m.: Afternoon session—Selected studio items.
 4.0: Literary selection by the announcer.
 4.8: Further selected items.
 4.30: Close down.
 6.0: Children's hour—Song service, conducted by Uncle Leo, assisted by cousins from Beresford Street Sunday School.
 6.55: Relay of evening service from St. Andrew's Church. Preacher, Rev. George Budd. Organist, Mr. Neil McDougall.
 8.30: Gramophone lecture-recital, Mr. C. B. Plummer.
 9.30: God Save the King.

2YA, WELLINGTON (420 METRES)—SUNDAY, SEPTEMBER 9.

- 3 p.m.: Afternoon session—Selected studio items.
 4.30: Close down.
 6.0: Children's Sunday service, conducted by Uncle Ernest, assisted by St. James' Presbyterian Sunday School Choir.
 7.0: Relay of evening service from Taranaki Street Methodist Church. Preacher: Rev. Clarence Eaton. Organist and choirmaster: Mr. H. Temple White.
 8.15 (approx.): Relay of band recital of Wellington Municipal Tramways Band from His Majesty's Theatre (conductor, Mr. T. Goodall).
 God Save the King.

3YA, CHRISTCHURCH (306 METRES), SUNDAY, SEPTEMBER 9.

- 3 p.m.: Studio concert—Selected studio items.
 4.30: Close down.
 5.30: Children's song service, conducted by Uncle David. Hymns will be sung by children from Tennyson Street Congregational Sunday School.
 6.30: Relay of evening service from Trinity Congregational Church. Preacher, Rev. D. Gardner Miller. Organist, Mr. Alec Mill, L.A.B. Choirmaster, Mr. A. G. Thompson, B.A.
 8.15: (Approx.) Gramophone recital from studio.
 9.30: God Save the King.

4YA, DUNEDIN (463 METRES), SUNDAY, SEPTEMBER 9.

- 5.30 p.m.: Children's song service, conducted by Big Brother Bill, assisted by the scholars of the Mornington Baptist Sunday School.
 6.30: Relay of service from St. Andrew's Street Church of Christ. Preacher, Pastor W. D. More. Choirmaster, Mr. W. Hickey.
 8.0: Studio concert.
 9.15: Close down.

Monday, September 10

1YA, AUCKLAND (333 METRES), MONDAY, SEPTEMBER 10.

SILENT DAY.

2YA, WELLINGTON (420 METRES), MONDAY, SEPTEMBER 10.

- 3 p.m.: Chimes of the General Post Office clock.
 3.1: Selected gramophone items.
 4.30 and 4.55 p.m.: Sporting results to hand.
 5.0: Close down.
 6.0: Children's hour, conducted by Aunt Gwen and Uncle Jeff. Piano solo, Cousin Phyllis: "Nocturne in Form of Waltz" (Besley). Story for the babes, Aunt Gwen. Song, Cousin Marjorie: "A Farewell" (Liddle). Birthdays, Uncle Jeff. Piano solo, Cousin Ruby: "Rondo," from "Pathetic Symphony" (Beethoven). Birthdays, Aunt Gwen. Duet, Cousins Marjorie and J.: "List to the Convent Bells." Story, Uncle Jeff. Song, Cousin Marjorie: "Sleepy Hollow Tune" (Kountz). Piano duet, Cousins Phyllis and Ruby: "Grand Vitesse" (Mullen). Puzzle. Good-night song.
 7.0: News session, market reports and sports results.
 8.0: Chimes of the General Post Office clock, Wellington.
 8.1: Overture, the orchestra: "Mirelle" (Gounod-Borch).
 8.11: Quartette, Ariel Singers: "Tally Ho" (Wheeler).
 8.14: Violin solo with orchestral accompaniment, Miss Ava Symons: "Andante Symphonic" (Lalo).
 8.20: Bass solo, Mr. J. M. Caldwell: "Rolling Down to Rio" (German).
 8.24: Instrumental, the orchestra: (a) "Humorous Danse" (Palmgrin); (b) "Venetian Love Danse" (Rich).
 8.32: Soprano solo, Miss Jeanette Briggs, L.A.B.: "Villanelle" (dell 'Acqua).
 8.35: Elocution, Mr. A. Stanley Warwick: "The Well of St. Keyne" (Southey).
 8.41: Instrumental, the orchestra: Repeat item.
 8.49: Baritone solos, Mr. Ernest Short: (a) "The Sun God" (James); (b) "How's My Boy" (Homer); (c) "Three" (Allitsen).
 8.59: Weather report and announcements.
 9.1: Relay of organ solos by Mr. H. Temple White: (a) "Le Soir" (Gounod); (b) "Chorale and Minuet," from "Suite Gothique" (Boellman).
 9.11: Tenor solos, Mr. Roy Hill: (a) "To Daisies" (Quilter); (b) "Oh, Mistress Mine" (Quilter).
 9.17: 'Cello solo with orchestral accompaniment, Mr. Geo. Ellwood: "Serenade Orientale" (Popper).
 9.23: Elocution, Mr. A. Stanley Warwick: "The Subaltern Buys the Ring" (Thomas).
 9.28: Mezzo-contralto solo, Miss Ngaire Coster: "Il Segreto," from "Lucrezia Borgia" (Donizetti).
 9.31: Ballet suite, the orchestra: "Ascanio Ballet Suite," Part 2 (Saint-Saens): 1. "Love Appears to Psyche"; 2. "Ensemble of Phoebus, Diane, Erigone, Nicoea and Bacchus with the Muses, Nymphs and Bacchantes"; 3. "Variation—Love Theme," Entrance of the Dragon of Hesperides, carrying the Golden Apple." Flute soloist, Signor Truda. 4. "Goddesses, Bacchantes, Nyaiads and Dryads."
 9.43: Bass Solo, Mr. J. M. Caldwell: "Harlequin" (Sanderson).
 9.47: Piano solos, Miss Alice Duff: (a) "Nocturne" (Grieg); (b) "Walderstrauchen" (Liszt).
 9.55: Vocal duet, Misses Jeannette Briggs and Ngaire Coster: "Venetian Boat Song" (Blumenthal).
 9.58: Choral with orchestra: (a) "A Breath of Our Inspiration," and (b) "We are the Musicians," from "The Merry-makers" (Elgar). His Master's Voice Record, D-1349.
 10.5: National Anthem.

3YA, CHRISTCHURCH (306 METRES), MONDAY, SEPTEMBER 10.

- 3.0 p.m.: Afternoon session. Selected studio items.
 4.25: Sports results.
 6.0: Children's hour. "A Night in Hawaii," with Scatterjoy and her little friends. Hawaiian songs by Cousins Alison and Margery.

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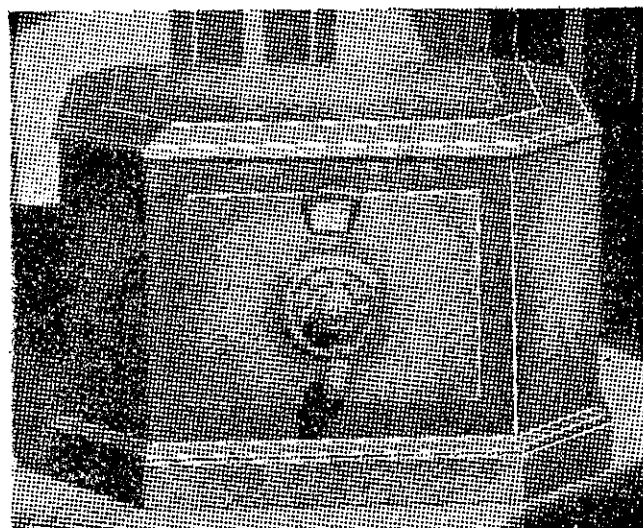
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Zither solos by Cousin Gwen: "Aloha," "Honolulu Blues." Stories of the Islands, by Scatterjoy. Birthday greetings and best writer's verse. Ukulele duo music by Cousins Wayne and Ken. Song by Cousin Kathleen: "The Land of Nod."

- 7.15: News session.
8.0: Chimes. Studio concert by Derry's Military Band and assisting artists.
8.1: March, Band; "Tent City" (English). Valse, Band: "Charmaine" (Rapee). Baritone songs, Mr. James Taylor: "Dear Old Pal o' Mine" (Rice); (b) "The Flight of Ages" (Bevan).
8.18: Selection, Band: "Reminiscences of Wales" (Godfrey).
8.30: Happy songs at the piano, Miss Muriel Johns.
8.36: Instrumental trio, Christchurch Broadcasting Trio: "Andante and Capriccio" (Reissiger).
8.44: Mezzo-contralto solos, Mrs. Bingham Puddey: (a) "Sweet Early Violets" (Sherrington); (b) "Who Is Sylvia?" (Schubert).
8.51: Allegro moderato, Band: "Ke Sa Ko" (Chapins).
9.3: Weather report.
9.5: Talk, Mr. Mark Rolls: "What shall we do with our own boys and girls?"
9.20: Overtures.
9.28: Baritone song, Mr. James Taylor: "The Trumpeter" (Dix).
9.32: Happy songs at the piano, Miss Muriel Johns.
9.38: Instrumental trio, Christchurch Broadcasting Trio: (a) "Minuet" (Shield); (b) "The Wood Nymph" (Lind).
9.44: Humorous descriptive sketch, Band: "A Southern Wedding" (Lotter).
9.56: Mezzo-contralto solos, Mrs. Bingham Puddey: (a) "Before the Dawn" (Lamb); (b) "Salaam" (Lamb). Two little Eastern songs.
10.1: Foxtrot March, Band: "Forgive Me" (Yellen); "Social Life" (Bohme). Announcement.
"God Save the King."

4YA, DUNEDIN (463 METRES), MONDAY, SEPTEMBER 10.

SILENT DAY.

Tuesday, September 11

1YA, AUCKLAND (333 METRES), TUESDAY SEPTEMBER 11.

- 3 p.m.: Afternoon session. Selected studio items.
4.0: Literary selection by the announcer.
4.8: Further studio items.
4.25: Sports results.
4.30: Close down.
6.0: Children's hour, conducted by Uncle George. Piano solo, Cousin Haddon: "Toccata." Sketch, Cousin Gwen: "A Visit to a Shoe Shop." Letters and birthdays. Recitation, Cousin Jim: "My Dog." Piano solo, Cousin Haddon: Selected. Dialogues, Cousins June and Jim: "The Secret." Bedtime stories.
7.15: News and market reports.
7.30: Book review.
8.0: Chimes.
8.1: Relay of overture from Majestic Theatre orchestra, under Mr. J. Whitford-Waugh.
8.11: Soprano solo, Miss Nancy Hannah: "Songs My Mother Taught Me" (Dvorak).
8.15: Flute solo. "Witches Dance" (Paganini).
8.19: Baritone solo, Mr. J. Hogan: "Harvester's Night Song" (Martin).
8.23: Instrumental trio Auckland Trio: "Finale from Trio in C-Minor" (Mendelssohn).
8.32: Contralto solo, Madame Irene Ainsley: "Sink, Red Sun" (Del Riego).
8.36: Pianoforte solo, Mr. C. Towsey.
8.41: Lecture on Old New Zealand, Mr. A. B. Chappell, M.A.: "Early Adventures in Trade."
8.56: Relay of musical interlude from Majestic Theatre orchestra.
9.4: Weather forecast.
9.5: Mezzo-soprano solo, Miss Nance Macklow: "Arise, O Sun" (Day).
9.9: Flute solo: "Papillon Op. 30" (Kohler).
9.13: Tenor solo, Mr. J. Maddocks: "Thou Art Risen" (Coleridge-Taylor).
9.17: Instrumental trio, Auckland Trio: "Serenade" (Drigo).
9.23: Contralto solo, Madame Irene Ainsley: "Love's Old Sweet Song" (Molloy).
8.29: Presentation of excerpts from "Maid of the Mountains" (Fraser-Simpson), under the direction of Madame Irene Ainsley.
Open Chorus: "Friends Have to Part."
Tenor and Chorus: "Live For To-day"
Soprano and Chorus: "My Life is Love."

- Soprano Solo: "Farewell."
Chorus: "Dividing the Spoil," "We're Gathered Here."
Soprano Solo: "Love Will Find a Way."
Soprano and Tenor: "A Paradise for Two."
Mezzo-soprano and Baritone: "Husbands and Wives."
Tenor: Solo: "A Bachelor Gay."
Chorus: "When Each Day."
Soprano, Baritone and Chorus: "Good People Gather Round."
Mezzo-soprano and Baritone: "Over Here, Over There."
Finale.
10.0: "God Save the King."

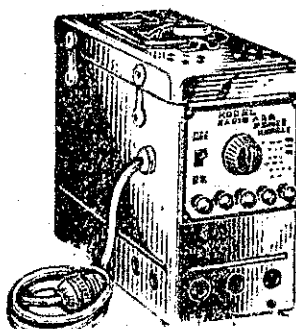
2YA, WELLINGTON (420 METRES), TUESDAY, SEPTEMBER 11.

- 3 p.m. Chimes of the General Post Office clock, Wellington.
3.1: Selected gramophone items.
4.30 and 4.55: Sporting results to hand.
5.0: Close down.
6.0: Children's hour, conducted by Big Brother Jack. Piano duet, Cousins Nola and Joyce: "Valse Noble" (Gurlitt). Birthdays, Big Brother Jack. Piano solo, Cousin Dulcie: "Russian Dance" (Engelmann). Recitation, Cousin Nola: "Little Pedlar of Dreams." Piano duet, Cousins Joyce and Dorothy: "Neger Tanz" (Gurlitt). Story, Big Brother Jack. Piano solo, Cousin Marjorie: "Valse" Op. 88 (Godard). Chorus (soloist, Cousin Joyce): "The Brown Thrush for Nature Lyrics."
7.0: News session, market reports and sports results.
7.40: Lecturette by representative of Agricultural Department: "For the Man on the Land."
8.0: Chimes of the General Post Office clock, Wellington.
8.1: Overture, the Orchestra: (a) "American Patrol" (Meacham); (b) "Blue Danube Waltz" (Strauss).
8.11: Tenor solo, Mr. Arthur Coe: "God Speed You, Dear" (Del Riego).
8.14: Contralto solo, Miss Lily Mackie: "Meadowsweet" (Brahe). (By request).
8.17: Duet for flute and clarinet, Signor Truda and Mr. E. Wright: "Lo, Hear the Gentle Lark" (Bishop).
8.23: Humour, Mr. Doug Stark: "Richard the First" (Manning).
8.30: Baritone with orchestra, Mr. Len Barnes, Four Indian Love Lyrics (Woodforde-Finden): (a) "Temple Bells," (b) "Less Than the Dust," (c) "Kashmiri Song," (d) "Till I Wake."
8.42: Soprano solo, Mrs. Alice Harris: "Softly Awakes My Heart" (Saint-Saens).
8.46: Instrumental, the Orchestra: Request Item.
8.54: Vocal Quartet, The Orpheus Quartet: "Ciribiribin" (Pestalozza). By request.
8.59: Weather report and announcements.
9.1: Tenor solo, Mr. Arthur Coe: "Swedish Love Song" (Morgan).
9.5: Humour, Mr. Doug Stark: "Bella" (Lauder).
9.12: Instrumental, the Orchestra: "Hunting Song" (Bucalossi). Xylophone solo with orchestral accompaniment: "Worrying" (soloist, Mr. L. Probert).
9.22: Songs at the piano, Mr. Billy Hart: (a) "Tellin' the Birds" (Friend); (b) and (c) Selected.
9.32: His Master's Voice Gramophone recital:
Selection, Band of H.M. Coldstream Guards: "Martha" (Flotow). H.M.V. Record, C-1453
Bass baritone solo, Mr. Peter Dawson: "Sirs, Your Toast," from "Carmen" (Bizet). H.M.V. Record C-1400.

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Violin solo, Jascha Heifetz: "Hebrew Melody" (Achron). H.M.V. Record DB-1048.
 Soprano solo, Miss Evelyn Scotney: "Blue Danube Waltz" (Strauss). H.M.V. Record D-1403.
 Pianoforte solo, Meischa Levitski: "Hungarian Rhapsody" No. 6 (Liszt). H.M.V. Record D-1383.
 Tenor solo, Mr. Joseph Hislop: "Bonnie Mary of Argyle" H.M.V. Record DB-1058.
 Orchestral, Philadelphia Symphony Orchestra: "Waltz of the Flowers," from "Nutcracker Suite" (Tchaikowsky). H.M.V. Record D-1216.
 Waltz, The Troubadors: "La Golondrina" (The Swallow). H.M.V. Record BA-349.

10.2: National Anthem.

3YA, CHRISTCHURCH (306 METRES), TUESDAY, SEPTEMBER 11.

SILENT DAY.

4YA, DUNEDIN (463 METRES), TUESDAY, SEPTEMBER 11.

3 p.m.: Town Hall chimes.
 3.1: Gramophone concert.
 4.0: Address on "Art Needlework" by Miss Marguerite Puechgod, under the auspices of the King Edward Technical College.
 4.15: Studio music.
 4.25: Sporting results.
 4.30: Close down.
 6.0: Town Hall chimes.
 6.1: Children's hour, conducted by Big Brother Bill. The Happy Folks' Anthem. Greetings, riddles and jokes. Concerted item by the High Street School. Storytime for chickabiddies. Concerted item by the High Street School. Letters, birthdays and Radio Postie. Concerted item by the High Street School. Travel talk by Big Brother Bill. Good-night.
 7.15: News session.
 7.30: Address.
 8.0: Town Hall chimes. Concert by the St. Kilda Band, under the direction of Mr. J. Dixon, and items by assisting artists.
 8.1: March, the Band: "Royal Rover" (Greenwood).
 8.5: Tenor solos, Mr. L. E. Dalley: (a) "I Heard You Singing" (Coates); (b) "A Little Day" (Smith).
 8.10: Recital, Miss Anita Winkel: "If" (Kipling).
 8.13: Hymns, the Band: "Abide With Me" and "Lead Kindly Light."
 8.18: Mezzo-soprano solo, Miss Bertha Rawlinson: "Waiata Maori" (Hill).
 8.22: Recitations, Mr. Lester Moller: (a) "The Thousandth Man" (Kipling); (b) "The Cow" (Stanford).
 8.30: Fantasia, the Band: "Rustic Scenes" (Rimmer).
 8.40: Baritone solos, Mr. Bert. Rawlinson: (a) "Melisande in the Wood"; (b) "When Song is Sweet" (Sans Souci).
 8.46: Waltz, the Band: "Caressante" (Moore).
 8.54: Soprano solos, Mrs. D. Carty: (a) "Where the River Shannon Flows"; (b) "The Old Rustic Bridge" (Shelley).
 9.0: Weather report and forecast.
 9.3: Cornet solo, with band accompaniment: "My Dreams" (Douglas).
 9.8: Tenor solo, Mr. L. E. Dalley: "Sailor's Song" (Wagner).
 9.11: Recitations, Miss Anita Winkel: (a) "Old Perriot" (Lovey); (b) Child impersonation—"I've Got the Mumps" (Green).
 9.18: Air with variations, the band: "Harmonious Blacksmith" (Hurrie).
 9.28: Mezzo-soprano solos, Miss Bertha Rawlinson: (a) "A Memory" (Goring-Thomas); (b) "The Spinning Wheel" (Lees).
 9.34: Recitation, Mr. Lester Moller: "Percy on Politics" (Hayes).
 9.40: Intermezzo, the Band: "The Bells of St. Germain" (Meiner).
 9.45: Soprano and baritone duet, Mrs. D. Carty and Mr. Bert. Rawlinson: "There was a Lad" (Mudie).
 9.50: Baritone solo, Mr. Bert. Rawlinson: "Duna" (MacGill).
 9.53: March, the Band: "Black Dike" (Greenwood).
 10.0: "God Save the King."

Wednesday, September 12

1YA, AUCKLAND (333 METRES), WEDNESDAY, SEPTEMBER 12.

3 p.m.: Afternoon session. Selected studio items.
 4.0: Literary selection by the announcer.
 4.8: Further studio items.
 4.25: Sports results.
 4.30: Close down.
 6.0: Children's hour, conducted by Uncle Tom. Opening chorus, Uncle Tom. Piano solo, Cousin Frank: "Marche Militaire" (Schubert). Story for tiny tots. Letters and birthdays. Song, Uncle Tom. Record. Piano solo, Cousin Frank: "To the Spring" (Grieg). Storytime. Uncle Tom, Closing chorus.
 7.15: News and market reports.
 7.45: Talk on "Physical Culture," by Mr. Norman Kerr.
 8.0: Chimes.
 8.1: Relay of Grand Organ selections by Mr. Maughan Barnett.
 9.30: Gramophone Lecture-recital, by Mr. Karl Atkinson.

2YA, WELLINGTON (420 METRES), WEDNESDAY, SEPTEMBER 12.

SILENT DAY.

3YA, CHRISTCHURCH (306 METRES), WEDNESDAY, SEPTEMBER 12.

3.0 p.m.: Afternoon session. Selected studio items.
 4.25: Sports results.
 6.0: Children's hour. A night with Brother Bill and his records. March, "March of the Toys." Camp fire songs and choruses by Cousin Vernon and the Scouts. Children's dances: (a) "Sir Roger de Coverley," (b) "Highland Fling." Story time with Brother Bill. Birthday greetings. Songs by Cousin Harold: "Robbin, Robbin," "Will You Walk a Little Faster?" Sketch by Dismal Desmond.
 7.15: Addington Stock Market reports.
 7.30: News session.
 8.0: Chimes.
 Miscellaneous programme.
 8.1: Overture, relay from Strand Theatre of orchestra, under conductorship of Mr. Harry Elwood.
 Tenor songs, Mr. T. G. Rogers: (a) "Love Sounds the Alarm" (Handel); (b) "There is a Valley" (Bates).
 8.9: Pianoforte solos, Miss Aileen Warren: (a) "Gangar," Peasant March (Grieg); (b) "I Love Thee" (Grieg); (c) "Country Gardens" (Grainger).
 8.18: Soprano and contralto duet, Misses Hilda Hutt and Nellie Lowe: "Where the Chestnuts Bloom" (Newton).
 8.22: Instrumental Trio, Christchurch Broadcasting Trio: "Larghetto and Finale" (Gade).
 8.30: Soprano songs, Miss Hilda Hutt: (a) "Nightingale of June" (Sander-son); (b) "Love I have Won You" (Ronald).
 8.37: Shakespearean Sketch, Messrs. W. H. Moses and Hiram Dunford: From "The Merchant of Venice" (Shakespeare). Gobbo, the father, Mr. W. H. Moses; Lancelot Gobbo, the son, Mr. Hiram Dunford.
 8.45: Clarinet solo, Mr. S. E. Munday: "Le Cygne,"—The Swan (Saint-Saens).
 8.50: Mixed vocal quartet: "Bring Us Good Ale" (Holst).
 8.54: Weather Report.
 8.56: Overture.
 9.4: Contralto songs, Miss Nellie Lowe: (a) "Two Eyes of Grey" (McGeoch); (b) "Ma Curly Headed Baby" (Clutsam).
 9.10: Instrumental trio, Christchurch Broadcasting Trio: "Hymn to the Sun" (Rimsky-Korsakov). "Spanish Dance No. 4" (Moskowski).
 9.18: Recitations, Mr. Hiram Dunford: "When You Feel All Right," (b) "Bad Luck for the Girls."
 9.25: Operatic choral items, La Scala Opera Chorus: (a) "Soldiers' Chorus" from "Faust" (Gounod); (b) "La Sonnambula" (Bellini). H.M.V. Record.
 9.33: Baritone songs, Mr. A. G. Thompson: "Blow, Blow Thou Winter Wind" (Sargeant), "The Strolling Player" (Trottere).
 9.41: Clarinet solo, Mr. S. E. Munday: "The Toreador's Song," from "Carmen" (Bizet).
 9.48: Tenor and baritone duet, The Dulcet Duo: "The Moon Hath Raised Her Lamp Above" (Benedict).
 Mixed Quartette, The Dulcet Quartet: "In This Hour of Softened Splendour" (Pinsuti).
 Announcement.
 "God Save the King."

4YA, DUNEDIN (463 METRES), WEDNESDAY, SEPTEMBER 12.

7 p.m.: Town Hall chimes.
 7.1: Request gramophone concert.
 7.40: News session, Burnside stock sales report.
 8.0: Town Hall chimes.
 8.1: Orchestral music relayed from the Octagon Theatre, under the direction of Monsieur Henri de Rose, M.B.
 8.10: Humorous songs, Mr. Chris. Harlie: (a) "As Soon as They Heard My Voice" (Castling); (b) "It's a Bi" (Foley).
 8.18: Piano-accordion solo, Mr. E. Heaney: Selected.

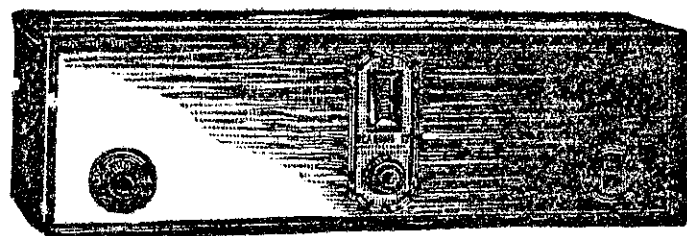
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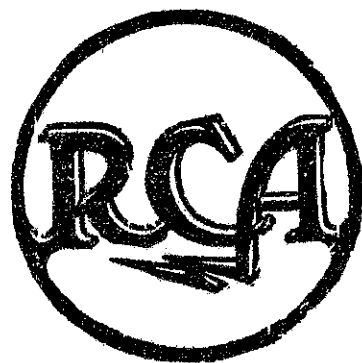


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- 8.21: Light mezzo-soprano solos, Miss Betty Roberts: (a) "Roses of Picardy" (Haydn Wood); (b) "Grow Little Mushroom Grow" (Miller).
 8.27: Humorous sketch, Miss Sheila Neilson and Mr. J. B. McConnell: Selected.
 8.37: Popular song hits, Dunedin Banjo Trio: (a) "Ramona" (Wayne); (b) "Until To-morrow" (Van Alstyne); (c) "Freshie" (Grier).
 8.47: Humorous Scottish song, Mr. Buster Brown: "The Wedding of Sandy McNab" (Lauder).
 8.51: Saxophone solo, Mr. J. McCaw: "Serenata" (Moszkowski).
 8.54: Popular song hits, Miss Thelma Blackman: (a) "Some Sunny Day" (Berlin); (b) "After I Say I'm Sorry" (Lyman).
 9.2: Weather report and forecast.
 9.4: Orchestral music from the Octagon Theatre.
 9.12: Humorous song, Mr. Chris. Harlie, "How We Laugh" (Andrews).
 9.15: Piano-accordion solos, Mr. E. Heaney: (a) "Auld Robin Gray"; (b) "Woodland Flowers" (traditional).
 9.22: Mezzo-soprano solo, Miss Betty Roberts, "Here's to Love" (Rubens).
 9.26: Humorous sketch, Miss Sheila Neilson and Mr. J. B. McConnell.
 9.36: Popular song hits, Dunedin Banjo Trio: (a) "After the Storm" (Nelson); (b) "Cherrio" (Vibo); (c) "Home, Sweet Home" (Messiri); (d) "To-night's My Night with Baby" (Butterworth).
 9.46: Humorous Scottish songs, Mr. Buster Brown: (a) "Bonnie Lizzie Lindsay" (Lauder); (b) "It's Nice to Get Up in the Morning" (Lauder).
 9.53: Saxophone solos, Mr. J. McCaw: (a) "Calico Rag" (Johnson); (b) "Saxophone Waltz" (Disk).
 9.59: Popular song, Miss Thelma Blackman: "In a Little Garden" (Iola).
 10.4: Close down.

Thursday, September 13

1YA, AUCKLAND (333 METRES), THURSDAY, SEPTEMBER 13.

- 3 p.m.: Afternoon session—Selected studio items.
 3.30: Talk on "Gas Cooking" by Gas Company's representative.
 3.45: Further studio items.
 4.0: Literary selection by the Announcer.
 4.8: Studio items.
 4.25: Sports results.
 4.30: Close down.
 6.0: Children's hour conducted by Peter Pan, assisted by pupils from Bayfield School, in part-songs, recitations, and solos. Letters and birthdays. Bedtime stories.
 7.15: News and market reports.
 8.0: Chimes.
 8.1: Orchestral: Parsifal Prelude" (Wagner).
 8.9: Vocal trio, The Casino Trio: "The Viking Song" (Coleridge-Taylor).
 8.13: Instrumental trio, Ingall's Hawaiian Orchestra: (a) "Kawaihau Waltz"; (b) "Waikiki Medley" (arr. Ingall).
 8.23: Tenor solo, Mr. T. Moffatt: "Obstination" (Fontenailles).
 8.27: Dialogue, Messrs. T. Harris and J. Mackie: "Shylock and Antonio," from "Merchant of Venice" (Shakespeare).
 8.33: Soprano solo, Miss Dorothy Youd: "Blackbird's Song" (Scott).
 8.37: Instrumental trio, Auckland Trio: "Rondo from Trio in B Flat" (Schubert).
 8.46: Saxophone solo, "Saxanola" (Doerr).
 8.50: Contralto solo, Miss Martha Williamson: "Cradle Song" (Somerville).

- 8.54: Orchestral, Ingall's Hawaiian Orchestra: (a) "Three o'Clock in the Morning" (Robledo); (b) "Hanalei Bay."
 9.2: Weather forecast.
 9.3: Tenor solo, Mr. J. Moffatt: "Si Mes Vers Aviant" (Hahn).
 9.7: Talk by Mr. Culford Bell on "Great Authors."
 9.17: Orchestral, "Madame Pompadour Selection" (Fall).
 9.25: Soprano solo, Miss Dorothy Youd: "Pierrot at the Dance" (Drummond).
 9.29: Violin solo, Miss Ina Bosworth: "Serenade" (Drdla).
 9.33: Humour, The Hebrew Two: "Conversation on Evolution."
 9.40: Instrumental trio, Auckland Trio: "Serenata" (Moszkowski).
 9.48: Contralto solo, Miss M. Williamson: "The Auld Hoose" (Old Scottish).
 9.52: Saxophone solo, "Valse Hilda" (Doerr).
 9.55: Orchestral, Ingall's Hawaiian Orchestra: (a) "Hilo Waltz Melody" (arr. Ingall); (b) "Hawaiian Echoes" (Roberts).
 10.2: Vocal trio, The Casino Trio: "When the Swallows Homeward Fly" (Abt).
 10.6: God Save the King.

2YA, WELLINGTON (420 METRES), THURSDAY, SEPTEMBER 13.

- 3 p.m.: Chimes of the General Post Office clock, Wellington.
 3.1: Selected gramophone items.
 4.30 and 4.55: Sporting results to hand.
 5.0: Close down.
 6.0: Children's hour conducted by Aunt Gwen. Nursery rhymes. Recitation, Cousin Molly, "Bedtime" (Vandegrift). Story, Cousin Betty. Birthdays, Aunt Gwen. Song, Cousin Betty, "A Song of Roses" (Wright). A trip to the Zoo: Big Cousin Vermont imitates birds and animals. Song, Cousin Betty, "An Arcadian Lullaby" (Krogmann). Recitation, Cousin Molly, "The Tale of a Dog and a Bee" (Anon.).
 7.0: News session, market reports and sports results.
 7.40: Lecture, Mr. Ashcroft Edwards, "Of Interest to Motorists."
 8.0: Chimes of the General Post Office clock, Wellington.
 Studio concert by Wellington Municipal Tramways Band (conductor, Mr. T. Goodall), assisted by 2YA artists.
 8.1: March and overture, Wellington Municipal Tramways Band: (a) "Cameronians" (Lovell); (b) "Don Giovanni" (Mozart).
 8.12: Tenor solos, Mr. Charles Williams: (a) "Mountain Song" (Corder); (b) "Bright are the Tiny Billows" (Schirmer).
 8.19: Vocal quartet, The Lyric Quartet: "In Absence" (Buck).
 8.23: Euphonium solo with band accompaniment, Bandsman L. Claydon: "The Gipsy's Warning" (Hartman).
 Waltz, Wellington Tramways Band: "A Waltz Dream" (Strauss).
 8.36: Baritone solos, Mr. Will Goudie: (a) "Romany Road" (Dickson); (b) "Can't Remember" (Goatley).
 8.43: Elocution, Miss Effie Bryce: "The Burglar" (Anon.).
 8.49: Selection, Wellington Tramways Band: "Faust" (Gounod).
 8.59: Weather report and announcements.
 9.1: Quartets, The Lyric Quartet: (a) "Go Ask Papa" (Parks); (b) "We Laid Our Little One Away" (Oakley).
 9.7: Pianoforte solo, Mr. C. Howard: "Wiener Blut" (Strauss).
 Singers" (Lane Wilson).
 9.15: Messrs. Chas. Williams and Will Goudie, ballad.
 9.19: Air varie, Wellington Municipal Tramways Band: "Eventide" (Rimmer).
 9.29: Elocution, Miss Effie Brice: "The Haunted Mere" (Walter de la Mare).
 9.34: Vocal quartet, The Lyric Quartet: "They Kissed" (Hawley).
 9.38: Bass solos, Mr. W. Binet Brown: (a) "When Song is Sweet" (Sans Souci); (b) "The Ringers" (Lohr).
 9.45: Quartet, The Lyric Quartet: "Negro Lullaby."
 9.49: Selection and March, Wellington Tramways Band: "Merry Wives of Windsor" (Nicolai); (b) "The Toilers" (Moss).
 10.0: National Anthem.

3YA, CHRISTCHURCH (306 METRES), THURSDAY, SEPTEMBER 13.

- 3 p.m.: Afternoon session—Selected studio items.
 4.30: Close down.
 6.0: Children's session conducted by Chuckle and Aunt Pat—Stories and birthday greetings. Half-an-hour's programme by St. Michael's Choir-boys under the direction of Mr. Vernon Griffiths.
 7.15: News session.
 7.30: Talk.
 8.0: Chimes.
 8.1: Overture.
 8.7: Baritone solos, Mr. Clive Hindle: (a) "She Alone Charmeth My Sadness" (from "Irene"—Gounod); (b) "Femme Sensible Ontends Tu" (from "Arcodant"—Mehul).
 8.15: Orchestral suite, "Dance Macabre" (Saint Saens), H.M.V. Record, D1121.
 8.23: Contralto solo, Mrs. Ann Harper: "Carilnoghi" (Donizetti).
 8.27: Tenor solo, Mr. Harold Prescott: "Land of My Fathers" (from "Lucia di Lammermoor"—Donizetti).
 Andaluza" (Sarasate); (b) "Anitra's Dance" (from "Peer Gynt" Suite—Grieg).
 8.31: Orchestral selections, Studio Orchestra: "Serenade," (a) Romanza.
 8.46: Soprano solo, Madame Gower-Burns: "Teachea La Notte" (from "Il Trovatore"—Verdi).
 8.50: Recitals (to music and without), Miss Winifred Smith: (a) "Old Pierrot" (Levey); (b) "The Pathway of Gold" (Greene).
 8.55: Ballet, Studio Orchestra: "Coppelia Ballet" (Delibes).

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- 9.5: Tenor and baritone duet: Grand Opera Duo: "Rudolph and Marco" (from "La Boheme"—Puccini).
 9.9: Weather forecast.
 9.11: Overture, Studio Orchestra: "Hungarian March" (Berlioz).
 9.21: Contralto solo, followed by soprano solo—Mrs. Ann Harper and Madame Gower-Burns: (a) "L'Esperto Nocciero" (Bononcini); (b) "Hinemoa" (from "Hinemoa"—Alfred Hill).
 9.28: Instrumental trio (violin, 'cello, and harp: "Serenade of Olden Time" (Silvestri), Zonophone record EE79.
 9.32: Baritone solo, Mr. Clive Hindle: "Eri Tu Che" (from "Un Ballo in Maschero"—Verdi).
 9.36: Selection, Studio Orchestra: "Second Sullivan Selection" (Sullivan).
 9.46: Tenor solo, Mr. Harold Prescott: "Sicillana" (from "Cavalleria Rusticana"—Mascagni).
 9.50: Recital, Miss Winifred Smith: "The Doom of the Stephanus" (from "The Sign of the Cross"—Barrett).
 9.56: Soprano and contralto duet, followed by quartet, Madame Gower-Burns and Mrs. Ann Harper, followed by Grand Opera Quartet—(a) "Madame Butterfly and Suzzuki" (from "Madame Butterfly"—Puccini); (b) Quartet from "Rigoletto" (Verdi).
 "God Save the King."

4YA, DUNEDIN (463 METRES), THURSDAY, SEPTEMBER 13.
 SILENT DAY.

Friday, September 14

IYA, AUCKLAND (333 METRES), FRIDAY, SEPTEMBER 14.

- 3 p.m.: Afternoon session—Selected studio items.
 4.0: Literary selection by the Announcer.
 4.8: Further studio items.
 4.25: Sports results.
 4.30: Close down.
 6.0: Children's session conducted by Nod and Aunt Jean. Duet, Veni and Adele de Marr. "Very Suspicious." Recitation, Edna de Marr: "And So Was I." Letters and birthdays. Duet, Veni and Adele de Marr, "The Backward child." Bedtime stories. Song, Aunt Jean, "Good-night."
 7.15: News and market reports.
 7.45: Close down.
 8.0: Chimes.
 8.1: Orchestral: "Orfee Aux Enfers" Overture (Offenbach).
 8.9: Vocal quartet, The St. Andrew's Quartet, "Madrigal" from "Ruddigore" (Sullivan).
 8.14: Wurlitzer Organ, "Forgive Me" (Yellen).
 8.18: Tenor solo, Mr. R. Peter: "The Gentle Maiden" (Somerville).
 8.22: Instrumental trio, Auckland Trio: "Overture to Flying Dutchman" (Wagner).
 8.31: One-act comedy, Auckland Comedy Players, under the direction of Mr. J. F. Montague: "The Plumbers."
 8.51: Vocal duet, Miss L. Solomon and Mr. R. Peter: "I Know a Maid" (from Ruddigore)—Sullivan).
 8.55: Cornet solos: (a) "At Dawn" (Code); (b) "At Sunset" (Code).
 9.2: Weather forecast.
 9.3: Contralto solos, Miss Phyllis Gribbin: (a) "Trees" (Rasbach); (b) "To Music" (Schubert).
 9.9: Orchestral, "Die Fledermans Selection" (Strauss).
 9.17: Bass solo, Mr. Arthur College: "I'm a Roamer" (Mendelssohn).
 9.22: 'Cello solo, Miss Molly Wright: "Andantino" Martini).
 9.26: Soprano solo, Miss L. Solomon: "Bird Songs" (Lehmann).
 9.30: Wurlitzer Organ, "Russian Lullaby" (Berlin).
 9.33: Sketch, Auckland Comedy Players: "A Want of Harmony."
 9.45: Duet, Miss Gribbin and Mr. College: "There Grew a Little Flower" (from "Ruddigore"—Sullivan).
 9.49: Instrumental trio, Auckland Trio: (a) "Serenade" (Widor); (b) "Waltz" (Elkin).
 9.57: Vocal quartet, St. Andrew's Quartet: "Thanks be to God" (arr. Churchill).
 10.1: "God Save the King."

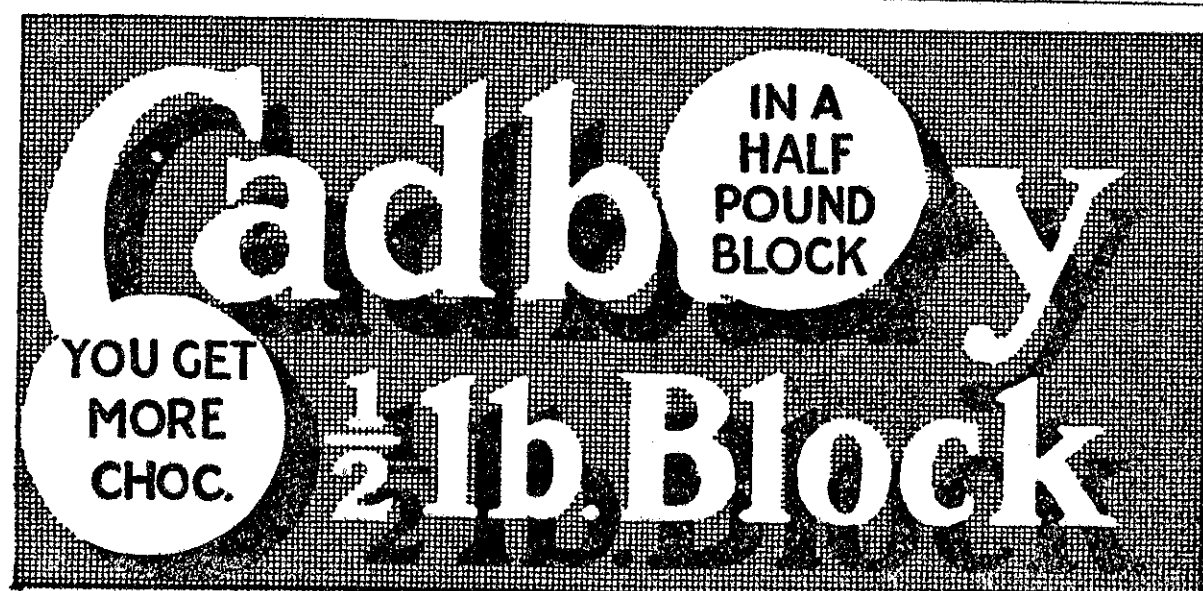
2YA, WELLINGTON (420 METRES), FRIDAY, SEPTEMBER 14.

- 3 p.m.: Chimes of the G.P.O. clock.
 3.1: Selected gramophone items.
 4.30 and 4.55: Sports results to hand.
 5.0: Close down.
 6.0: Children's session conducted by Uncle Ernest—Song, Cousin Ailsa, "All the Tears that Children Shed" (Arundale). Piano solo, Cousin Babs, "Berceuse" (Chopin). Birthdays, Uncle Ernest. Song, Cousin Joyce, "Up in the Sky" (Arundale). Piano solo, Cousin Babs, "Musical Box" (Severac). Song, Cousin Ailsa, "White Bird" (Arundale). Story, Uncle Ernest. Song, Cousin Joyce, "Almond Blossom" (Arundale). Good-night poem.
 7.0: News session, market reports and sports results.
 8.0: Chimes of the G.P.O. clock.
 8.17: Overture, the Orchestra: "Gluck Overture" (Suppe).
 8.10: Trio—The Etude Trio: "Breathe Soft, Ye Winds" (Paxton).
 8.13: Soprano solo, Miss Gretta Stark: "On Mighty Pens" (from "The Creation"—Haydn).
 8.17: Instrumental, the Orchestra: (a) "Coronach" (MS.); (b) "Passepied" (from "Le Roi S'Amuse"—Delibes); (c) "Minuetto All'antico" (Karganoff).

- 8.28: Baritone solo, Mr. Ray Kemp: "King Charles" (White).
 8.32: Recitals, Mr. Lionel Inch: (a) "Ballad of the Clampherdown" (Kipling); (b) "Bugler Allen" (Taylor).
 8.39: Tenor solos, Mr. Frank Skinner: (a) "Mignon" (d'Hardelot); (b) "Sylvelin" (Sinding).
 8.45: Organ solos: (a) "The Question" (Wolstenholme); (b) "The Answer" (Wolstenholme)—H.M.V. Record E415.
 8.53: Vocal duet, Miss Gretta Stark and Mr. Ray Kemp: "Of Fairy Wand" (from "Maritana"—Wallace) (by request).
 8.58: Weather forecast.
 8.58: Weather forecast.
 9.0: Instrumental, the Orchestra: Request number.
 9.8: Scena, Etude Quartet: "He Has Called Her" (from "The Legend of Nerbudda"—Bath).
 9.13: Instrumental, the Orchestra: "Caravan in the Desert" (Niemann).
 9.17: Baritone solo, Mr. Ray Kemp: "Arab Song" (Bemberg).
 9.21: Minuet, the Orchestra: "Celebrated Minuet" (Boccherini).
 9.26: Recitals, Mr. Lionel Inch: (a) "Bannerman Rode the Grey" (Pater-son); (b) "An Old Sweetheart of Mine" (Harris).
 9.33: Contralto solos, Miss Rita Arnold: (a) "Habanera" (from "Carmen" (Bizet); (b) "Angels Guard Thee" (Godard).
 9.39: Instrumental, the Orchestra: "Ascanio Ballet Music," Part 1 (Saint-Saens)—(1) "Entry of the Master of the Games," (2) "Venus, Juno, and Pallas," (3) "Diana, Wood-Nymphs and Water-Nymphs," (4) "Bacchus and the Bacchantes," (5) "A Vision of Phoebus Apollo, and the Nine Muses," (6) "Phoebus and the Harp and Cupid." (Saint-Saens makes great use of the woodwind in this ballet of the gods, and the second number is particularly notable for the brilliant flute solo, played by Signor Truda.).
 9.53: Vocal quartet, Etude Quartet: "See Our Oars" (Stevenson).
 9.56: Light opera selection, the Orchestra: "Ruddigore" (Sullivan).
 10.6: God Save the King.

3YA, CHRISTCHURCH (306 METRES), FRIDAY, SEPTEMBER 14.

- 3 p.m.: Afternoon session—Selected studio items.
 6.0: Children's hour—Opening chat and story for the Tiny Tots by Big Brother. Songs by Cousin Dorothy, "The Sugar Plum Tree." Choruses by Shirley Juvenile Choir, "Merry Sunbeams," "The Song of the Lark," "Good-bye." Birthday greetings. Recitations by Cousins Ralph, Selwyn, Nola, and Kathleen, "The Poet's Corner," "What the Choir said about the New Bonnet," "Bad Sir Brian." Playette, "The 'Sorry-for-it' Society."
 7.15: News session.
 7.30: Football review by Mr. J. K. Moloney.
 8.0: Chimes.
 Vocal excerpts from musical play "Going Up" (by Hirsch) and popular programme.
 8.1: Rebroadcast of 2YA, Wellington (conditions permitting).
 8.7: Opening chorus followed by bass solo and chorus—The Radiolians and Mr. W. J. Richards: "I'll Bet You" (Hirsch).
 8.14: Violin solo, Miss Irene Morris: "Air from Concerto" (Goldmark).
 8.18: Contralto and bass duet, Radiolian Duo: "I Want a Boy" (Hirsch).
 Soprano and contralto duet, Radiolian Duo: "If You Look in her Eyes" (Hirsch).
 8.25: Instrumental trio, Christchurch Broadcasting Trio: "Presto" (Hammell).
 8.33: Tenor solo and chorus, Mr. Gregory Russell and Radiolians: "Going Up" (Hirsch).
 8.37: Trumpet solo, Mr. Percy Reeves—"Carnival de Venice" (Arban).
 8.42: Contralto and tenor duet, Miss M. Russell and Mr. Gregory Russell: "The Touch of a Woman's Hand" (Hirsch).
 8.46: Recitations, Mr. R. R. Wills: "Swandalaya" (South Sea Island love story—Townsend).
 8.50: Wurlitzer Organ solo: "After I've Called You Sweetheart" (Little).
 8.54: Tenor and bass duet, Radiolian Duo: "Down, Up, Left, Right" (Hirsch).
 8.58: Weather report.
 9.0: Overture, "Going Up."
 9.9: Soprano and bass duet, Radiolian Duo: "Do It for Me" (Hirsch).
 Soprano solo and chorus, Radiolian Duo: "Tickle Toe" (Hirsch).
 9.17: Violin solo, Miss Irene Morris: "Aubade" (D'Ambrosio).
 9.21: Soprano and tenor duet, Mrs. Claris Shaw and Mr. Gregory Russell: "Kiss Me" (Hirsch).



- 9.25: Instrumental trio, Christchurch Broadcasting Trio: (a) "Barcarolle" (Tchaikowsky); (b) "Scherzo" (Gade).
 9.33: Scene and chorus: The Radiolians.
 9.37: Trumpet solo, Mr. Percy Reeves: "Coming thro' the Rye" (Rimmer).
 9.42: Chorus, Radiolians: "Hip Hooray" (Hirsch).
 9.46: Humorous recitations, Mr. R. R. Wills: (a) "The German on the Telephone"; (b) "Carlotta Mia" (humorous Italian love story).
 9.53: Wurlitzer Organ solo: "Just a Memory."
 9.57: Bass solo and chorus, followed by finale—Mr. W. H. Richards and Radiolians: "There's a Brand-new Hero" (Hirsch); "You Start to Sway" (Hirsch).
 Announcement.
 God Save the King.

4YA, DUNEDIN (463 METRES), FRIDAY, SEPTEMBER 14.

- 3 p.m.: Town Hall chimes.
 3.1: Gramophone concert.
 3.15: Fashion talk by Miss Buccleuch, of the D.S.A., Ltd.
 3.30: Afternoon-tea music from the Savoy.
 3.45: Studio music.
 4.0: Music from the Savoy.
 4.15: Gramophone selections.
 4.25: Sporting results.
 4.30: Close down.
 6.0: Town Hall chimes.
 6.1: Children's hour, conducted by Aunt Sheila and Big Brother Bill. The Happy Folks' Anthem. Greetings, riddles, and jokes. Concerted item by Musselburgh School. Storytime for chickabiddies: Aunt Sheila. Concerted item by the Musselburgh School. Letters, birthdays, and Radio Postie. Concerted item by the Musselburgh School. Aunt Sheila and Big Brother Bill talk about animals that used to live on the earth. Concerted item by the Musselburgh School.
 7.15: News session.
 8.0: Town Hall chimes.
 8.1: Orchestral selection.
 8.10: Mezzo-soprano solos, Miss Molly Vickers: (a) "Oh, No, John" (traditional); (b) "Salaam" (Lang).
 8.16: Recitation, Miss Madge Yates: "The Storming Party" (Doyle).
 8.20: Baritone solo, Mr. L. M. Cachemaille: "Sea Fever" (Clarke).
 8.24: Cornet solos, Mr. George Christie: (a) "Tranquility" (Hume); (b) "Romance" (Jenkins).
 8.30: Mezzo-soprano solo, Miss Molly Vickers: "My Rose" (Lacey).
 8.34: Recitations, Miss Madge Yates: (a) "The Chicken"; (b) "The Old Stage Queen."
 8.42: Pianoforte solo, Mrs. Ernest Drake: "Nocturne" (Chopin).
 8.46: Baritone solos, Mr. L. M. Cachemaille: (a) "Waiata Poi" (Hill); (b) "Uncle Rome" (Homer).
 8.52: Cornet solo, Mr. George Christie: "The Mocking Bird" (Cox).
 8.59: Weather report and forecast.
 9.2: An hour's dance music from the Savoy by Alf. Carey and his orchestra.
 10.2: Close down.

Saturday, September 15

1YA, AUCKLAND (333 METRES), SATURDAY, SEPTEMBER 15.

- 2.45: Relay description of Rugby football match, Mr. W. J. Meredith, announcer.
 3 p.m.: Afternoon session—Selected studio items.
 4.0: Literary selection by the Announcer.
 4.8: Further studio items.
 4.30: Close down.
 6.0: Children's hour, conducted by Cinderella. Song, Cousin Doreen, "Mr. Nobody." Piano solo, Cousin Dick: "Tarantelle" (McDowell). Letters and birthdays. Song, Cousin Doreen, "Twinkle, Twinkle, Little Star." Recitation, Cousin Dawn (selected). Piano solo, Cousin Dick, "Shepherds' Dance" (German). Bedtime stories.
 7.15: News and market reports.
 8.0: Chimes.
 8.1: Orchestral, "Italians in Algiers" (Rossini).
 8.9: Vocal quartet, The Lyric Quartet: "Ukulele Dream Girl" (arr. Crowther).
 8.13: Tenor solo, Mr. H. Richards: "My Laddie" (Thayer).
 8.17: Banjo solo, "Unconquered" (Pidoux).
 8.21: Bass solo, Mr. E. Thomas: "Chorus, Gentlemen" (Lohr).
 8.26: Concertina, "Impudence" (Macay).
 8.30: Vocal quartet, The Lyric Quartet: "Soldier's Farewell" (Kindel).

- 8.34: Orchestral, "Rhapsody in Blue."
 8.42: Tenor solos, Mr. A. Ripley: (a) "A Memory" (Parkes); (b) "The Star" (Rogers).
 8.47: Banjo solo, "A Plantation Episode" (Grimshaw).
 8.51: Vocal duet, Messrs. Richards and Thomas: "Fairings" (Martin).
 8.55: Concertina, "Poppies" (Moret).
 8.59: Weather forecast.
 9.0: Humour, Mr. A. McElwain: "Some Humour."
 9.5: Vocal quartet, The Lyric Quartet: "Some Folks Say" (Huntly).
 9.9: Relay of dance music from Mason Hall Dance Orchestra under Mr. Edgar Bendall.
 11.0: God Save the King.

2YA, WELLINGTON (420 METRES), SATURDAY, SEPTEMBER 15.

- 3 p.m.: Relay description of Rugby representative football match, Nelson v. Wellington, from Athletic Park.
 6.0: Children's session—Aunt Gwen, Uncle Toby, and pupils of Mrs. Theo. Hills. Monologue, Cousin Marjorie: "Leetle Rosa" (Anon.) (second junior test under 16 years, Wellington Competitions, 1928). Birthdays, Aunt Gwen. Monologue, Cousin Audrey, "Old Chap" (Anon.). Birthdays, Uncle Toby. Song, Cousin Jim, "I Hear You Calling Me" (Marshall). Recitation, Cousin Maisie, "Bedtime" (second character recital, Wellington Competitions, 1928). Recitation, Cousin Peter: "Mr. Brown Gets His Hair Cut" (first prize winner, Wellington Competitions, 1928). Song, Uncle Toby (selected). Recitation, Cousin Joyce, "Little Helper" (Anon.) (first girls' test under 9 years, 81 competitors, 6 years old). Mouth-organ solo, Uncle Toby (selected). Recitation, Cousin Ian, "The Boy with the Pony" (Anon.). Good-Night song.
 7.0: News session, market reports and sports results.
 8.0: Chimes of the G.P.O. clock.
 8.1: Overture, the Orchestra: "Bing Boys" (Ayer-Baynes).
 8.11: Vocal quartet, Melodie Four: "Lay My Head Beneath a Rose" (Falkenstein) (by request).
 8.15: Tenor solos, Mr. Frank Bryant: (a) "My First Love" (Lohr); (b) "You'd Better Ask Me" (Lohr).
 8.21: Entertainment piano, Will Gardner: (a) "That's Another One Gone" (from "Phi Phi"—Darewski); (b) "A Little Bit of Heaven" (Polyglot version, Gardner)—Zonophone record 5079.
 8.27: Baritone solo, Mr. R. S. Allwright: "The Village Blacksmith" (Weiss).
 8.31: Instrumental, the Orchestra (request number).
 8.39: Humour, Mr. Geo. Titchener: "I Am Sure I'll Sleep Well To-night" (Robey).
 8.46: Vocal quartet, Melodie Four: "Johnny Schmoker" (Dix).
 8.50: Instrumental, the Orchestra: "The Street Singer" (Fraser-Simpson).
 9.0: Weather forecast.
 9.2: Tenor solos, Mr. Sam Duncan: (a) "A Dream" (Bartlett); (b) "There is a Flower that Bloometh" (from "Maritana"—Wallace).
 9.9: Jazz piano solos—(a) "The Dancing Tambourine" (Ponce-Polla); (b) "The Doll Dance" (Brown)—Zonophone record EE98.
 9.15: Mr. George Titchener: "Pass the Salt."
 9.22: Minuet and song, the Orchestra: (a) "Minuet in G" (Paderewski); (b) "Chanson Joyeuse" (Ravena).
 9.32: Vocal quartet, Melodie Four: "So Blue" (De Sylva, Brown and Henderson).
 9.36: Instrumental, the Orchestra: "Three Spanish Dances" (Moszkowski).
 9.46: Bass solos, Mr. W. W. Marshall: (a) "Who Keep the Sea" (Breville-Smith); (b) "Friendship" (Harvey).
 9.53: Instrumental, the Orchestra: Dance numbers.
 10.3: Dance programme.
 11.0: Close down.

3YA, CHRISTCHURCH (306 METRES), SATURDAY, SEPTEMBER 15.

- 2.45 p.m.: Relay description of Rugby football match—New South Wales versus New Zealand—from Lancaster Park (Third Test).
 6.0: Children's session, conducted by Uncle Sam. Story for the Tiny Tots, Uncle Sam. Songs, Cousin Francis, "In a Little Old Garden," "Stay With Me, Summer." Birthday greetings. Recitations, Cousin Dorothy, "On the Bus Top," "Miss Dorothy Enters the Ministry," "The Sad Fate of Mrs. Medders." Story-time, Uncle Sam, "The Secret Garden" and "The Settler of Serpent Creek."
 7.15: News session.
 7.30: Sports results.
 8.0: Rebroadcast of 2YA, Wellington, including dance music programme.
 11.0: God Save the King.

4YA, DUNEDIN (463 METRES), SATURDAY, SEPTEMBER 15.

- 2.45 p.m.: Relay from Carisbrook ground of description of inter-provincial football match, Wellington v. Otago.
 7.15: News session.
 7.30: Lecturette, under auspices of W.E.A.
 8.0: Town Hall chimes.
 8.1: Orchestral selections from the Strand Theatre, under the baton of Mr. L. D. Austen.
 8.15: The 4YA Harmonists present selections from the musical comedy, "Kissing Time" (Caryll).
 Soprano Miss Roma Buss
 Mezzo-soprano Miss Mollie Andrews
 Tenor Mr. C. C. Scott
 Baritone Mr. F. M. Tuohy
 Act I.
 Opening chorus.
 Soprano solo—"Godmothers."

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 Soprano, tenor, and baritone trio—"I Like It."
 Mezzo-soprano and baritone duet—"Don't Fall in Love With Me."
 Finale—Act I.
 Pianoforte solos—Mrs. Ernest Drake, (a) "Intermezzo in C" (Brahms); (b) "Valse, Op. 64, No. 1" (Chopin).
 Recitation—Miss Roberta Williams, "The Vicar's Presentation."
 Violin solo—Mr. A. R. Watson, "Spring Song" (Mendelssohn).
 Flute solo—Mr. J. W. Stewart, "The Little Flirt" (De Lorenzo).
 Act II.

Opening chorus.

Soprano, tenor, and baritone trio—"Oh, How Warm It Is, To-day."
 Baritone solo—"Women Haven't Any Mercy."
 Mezzo-soprano and tenor duet—"Joan and Peter."
 Mezzo-soprano solo—"Thousands of Years Ago."
 Soprano solo—"Oh, My Cherie."
 Mezzo-soprano and baritone duet—"There's a Light in Your Eyes."
 Finale—Act II.
 Instrumental trio—(a) "I Dreamt That I Dwelt in Marble Halls" (Balfe); (b) "La Paloma" (Yradier).
 Recitations—Miss Roberta Williams, (a) "The Three Crosses"; (b) "Hullo! What Are You Doing Here?"
 Flute solo—Mr. J. W. Stewart, "Spanish Serenade" (Popp).
 Violin solo—Mr. A. R. Watson, "Chant Sans Paroles" (Tschai-kowski).

10.0: God Save the King.

Sunday, September 16

1YA, AUCKLAND (333 METRES), SUNDAY, SEPTEMBER 16.

3 p.m.: Afternoon session—Selected studio items.
 4.0: Literary selection by the Announcer.
 4.8: Further selected studio items.
 4.30: Close down.
 6.0: Children's service, conducted by Uncle Leo, assisted by cousins from the Greenlane Congregational Sunday School.
 6.55: Relay of Divine service from the Church of Christ. Preacher, Mr. E. Aldridge. Organist, Mr. H. Knowles. Choirmaster, Mr. W. Thomson.
 8.30: Relay of military band selections by Auckland Municipal Band, under the direction of Mr. Christopher Smith.
 9.0: God Save the King.

2YA, WELLINGTON (420 METRES), SUNDAY, SEPTEMBER 16.

3 p.m.: Afternoon session—Selected studio items.
 4.30: Close down.
 6.0: Children's Sunday service, conducted by Uncle Ernest, assisted by cousins from Cambridge Terrace Congregational Sunday School Choir.
 7.0: Relay of evening service from St. Thomas's Anglican Church, Newtown. Preacher, Rev. C. V. Rooke, M.A. Organist and choirmaster, Mr. Wenzel Collie, L.L.C.M.
 8.15 (approx.): Studio concert, arranged by Mr. Roy Hill.
 Overture—"Egmont" (Beethoven).
 Mezzo-contralto solo—Miss Ngaire Coster, "O, Rest in the Lord," from "Elijah" (Mendelssohn).
 Trumpet and organ selection—"A Trumpet Voluntary" (Purcell).
 Bass solo—Mr. J. M. Caldwell, "Honour and Arms" (Handel).
 Cello, organ, and orchestra—"Solemn Melody" (Walford-Davies).

Vocal quartet—Ariel Singers, "This World is But a Fleeting Show" (Waley).
 Overture—"Rosamund" (Schubert).
 Soprano solo—Miss Jeanette Briggs, L.A.B., "Rejoice Greatly," from "The Messiah" (Handel).
 Symphony—"First Movement, Fifth Symphony" (Beethoven).
 Vocal duet—Miss Ngaire Coster and Mr. J. M. Caldwell, "O, Love Divine" (Stainer).
 Operatic selection—"Il Trovatore" (Verdi).
 Tenor solo—Mr. Roy Hill, "How Vain is Man," from "Judas Mac-cabeus" (Handel).
 Band selection—"William Tell" Overture (Rossini).
 God Save the King.

3YA, CHRISTCHURCH (306 METRES), SUNDAY, SEPTEMBER 16.

3 p.m.: Recital from the studio of gramophone records, electrically reproduced.
 4.30: Close down.
 5.30: Children's song service, conducted by Uncle David, assisted by scholars from the Moorhouse Avenue Church of Christ Sunday School.
 6.30: Relay of service from Church of Christ, Moorhouse Avenue. Preacher, Pastor J. Crawford. Organist, Miss E. Hepburn. Choirmaster, Mr. H. Ames.
 7.45: (approx.): Recital from the studio of gramophone records, electrically reproduced.
 9.30: God Save the King.

4YA, DUNEDIN (463 METRES), SUNDAY, SEPTEMBER 16.

5.30: Children's song service, conducted by Big Brother Bill, assisted by scholars from the Knox Church Sunday School.
 6.30: Relay of service from the Hanover Street Baptist Church. Preacher, Rev. E. S. Tuckwell, M.A. Choirmaster, Mr. H. P. Desmoulin. Organist, Mr. Upton Harvey.
 8.0: Sacred concert, arranged by Mr. Desmoulin, from the church.
 9.15: Close down.

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ANSWERS TO CORRESPONDENTS.

W.H. (Westport): "There are two jacks on the panel of the receiver, one from each stage of audio. The jack at the back is from the second audio stages. It has not been stated which plug on the panel was used, but, presuming that phone strength was obtainable from the first audio jack and nothing from the two second-stage ones, it is evident that either the final audio valve or transformer is at fault. The valve may yet light, but be dead, as explained in the "Record" last week. Have it tested, likewise the transformer, if the valve is O.K."

A.R. (Hataitai).—The "Game of Life" will be given Monday, September 24.

M.W. (Okaramio).—The list you require would involve well over a thousand names, some being stations heard only for a few miles. The list of those heard in New Zealand is available through our Listeners' Guide. ANE (Bandoeng, Java), operating on 31.93 metres (9395 kc.), is on the air from 10 p.m. till 12 midnight, Tuesdays and Thursdays. A 5-watt broadcaster is attached to this station and operates on 310 metres.

Our Mail Bag

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.

General Appreciation.

I FELT it my duty to write saying how much I appreciated the "Radio Record" and the entertainment and news session provided to listeners. It has often occurred to me what a vast amount of work there is in collecting the latest news and musical programmes. Personally I think the wireless is the greatest boon to the country the world has ever known. It is just twelve months since I bought my wireless set, and I did not realise till then what beautiful music was put over the air.—J. F. Osborne (Nelson).

Sunday Concerts.

WE read of someone in the "Radio Record" of August 17 complaining about the Wellington Sunday concerts. Now I feel I must write our appreciation of them. We live in the country, and have quite a lot of listeners on Sunday nights who cannot get away early enough through the week to get to town for concerts early enough, and how they do enjoy the concerts on Sunday nights. I once heard a musician say that all music is sacred, and I agree with him, and convey my thanks to the contributors of 2YA, and hope we won't be cut out of our Sunday concerts, as I'm sure there are enough stations on the air to suit all tastes.—Housewife (Totara).

Sunday Afternoon Concerts.

I SHOULD like to express my appreciation of the Sunday afternoon concerts at 3YA. The records are so good and well chosen. I also congratulate the "Christchurch Broadcasting Trio" and the "Studio Orchestra," the first performance of the latter being very fine. I am unable to go out at night and the radio concerts give me many a pleasant evening.—S. E. Maude (Christchurch).

A Model Programme.

IN the current issue of the "Radio Record" I am taken to task as an "ignorant dealer" and practically told I would not know good music if I heard it. First, I am an old orchestral member; thirty years ago I used to play for Bland Holt, Pollard's Opera Co., Williamson Musgrove Opera Co., etc. This disposes of my being able to appreciate good music. Second, I am no dealer, and what is more have no connection with any dealer or agents, but I always have visitors five or six nights a week. I always treat listeners as prospective buyers, and that will only take place if you do as advised in "Radio Record" of August 3, p. 32 and 33, except that I do not only tell others but I try to show others and thus widen the radio circle, etc. Third, the following is my idea of a stock programme and stock is right phrase as 2YA programmes are the same artists every week, with the Thursday night band as an exception. Some of them must have a lease of the studio and will not forego a single item, as for example I wanted to hear a special item one Tuesday and tuned in just as it was due, but a "barrow" tone came through. Of course I pre-

sumed he had not finished his turn. He is always well to the front, three and four items bracketed: if this is not what we used to call stock programme, what is? Now this is my idea of a programme:—

1. Clock.
2. Overture—Orchestra, "Overture William Tell."
3. Songs at piano.
4. Violin solo, "Mendelssohn's Spring Song."
5. Humorous item (song or recital).
6. Orchestra, "H.M.S. Pinafore," introducing "We Sail the Ocean Blue, 'Little Buttercup.'" etc.
7. Cello solo, "Broken Melody" or "Barcarolle" ("Tales from Hoffman").
8. Violin, flute and piano, "Mocking Bird."
9. Songs at piano.
10. Humorous item.
11. Xylophone solo, "Legend of the Bells" ("Les Clotches de Corneville").
12. Pianoforte solo, "Militaire Marche."
13. Orchestra (repeat item or encore).
14. Orchestra, "Blue Danube Waltz."

Good-night.

This type of programme would not require a galaxy of quartets and other artists as it only requires two artists outside the orchestra. Artists and instruments are in the studio. Why not use them?—J.K. (Trentham).

2ZM, Gisborne.

WHILE thanking you for the space in this matter, I express sorrow for the impression conveyed that my receiver tuned in the above on the condenser from 1 to 180. It does not, but different people owning first-grade expensive American sets affirmed that he interfered with Christchurch and Auckland transmissions. My object in writing was to get Mr. Stevens to tune his station to his allotted wavelength (for I consider he was tuned too high), and not to draw in other correspondents. I am fully aware of Mr. Stevens's capabilities, and know that he can yet improve his station so that it will not interfere. I have noted the visits to his place of a technical officer of the Telegraph Department, and I am pleased to say there has already been an improvement. A little further adjusting could be carried out yet. I am deeply sensible to the advantage of having a local station during the summer season, but that is no reason why we should be inflicted with a poor one all the remainder of the year when the owner has the ability to put things right.—A.K. (Gisborne).

A Country View of Racing Ban.

I TAKE this opportunity of recording my protest against the racing officials for their decision to ban the broadcasting of races. Will this tend to stop illegal betting? No, of course not. Will the ban encourage people to go to a meeting? If these gentlemen wish to stop news from getting out quickly, why not stop the Press and disconnect all telephones leading from the course. The ban is all bunkum, as

anyone can get a race result from any part of New Zealand within 30 minutes, and often within five minutes if the meeting is close. Take the country people. I live 80 miles from the nearest course, and attend only three meetings a year, and never bet off the course. Why should we be barred. I in future am going to keep away from the meetings. I bought a wireless set to bring town activities to my humble home surrounded with bush and a mud road (18 miles) in the bargain. Do the officials expect me to leave my daily work and attend their meetings? It looks like it. Can any of the gentlemen responsible for the bar say they have never bet off the course when a meeting has been held away from their town and they could not attend? Nuff said! I know many of these gentlemen turned their backs when the Heeney-Tunney fight was being broadcasted, and do they not enjoy listening to the football and boxing? I guess they do. If horse racing is the good clean sport that we are led to believe it is, why be ashamed to broadcast and let the Press get in first? One can get results within a short space of the running of a race without a radio, so why blackball the poor old thing?—Countryite.

Radio In the Country.

WE in the country have few amusements and, believe me, radio proves a blessing. One often reads per medium of your mailbag various letters expressing dissatisfaction of programmes broadcast and of transmission of various stations. All I can say is that, to we poor country folk the programmes are all, especially Saturday nights' transmission is good. My opinion is that the town folk are too well catered for in the way of amusement and consequently grow fastidious or else they require to purchase a decent valve set. The remedy I would suggest would be to send a few of them out on to a farm for a while and see what their complaints then would be.

I also wish to express my disappointment of the attitude taken up by the Racing Conference re broadcasting of races. This, the broadcasting of races, was one of the main reasons why I purchased a powerful set. Being a Christchurch man, naturally my interests are centred there, and as my people are owners of race horses, I went in for an 8 valve set, which would get Christchurch in daytime. What now is my disappointment to hear of the conference's absurd prohibition of results.

Allow me, per medium of your paper or otherwise, to thank the Boxing Association and also 4YA for excellent broadcasts of events at the ring on the past Saturday nights. We always have all boxing enthusiasts here whenever a match is on, and they, everyone of them, thoroughly enjoy them. The Tunney-Heeney fight came through very good and could be heard 50 yards away. We obtained same from Wellington and, believe me, the boxing fans had a day out that day.

In conclusion I must once again express my satisfaction and appreciation of all programmes broadcast and also of your valuable paper. To those who do not like any item my advice is, think of those who do, and instead of complaining so much either switch off or switch in to a programme that does suit.

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A closing suggestion is that either an earlier hour for concert session or a half-hour broadcast of gramophone records say from 7.30 to 8, from one of the four stations would give great pleasure to country folk whose calling calls for early retiring.—E. B. Stevens (Whakatane).

The King's English.

IN your last issue Mr. Stuart W. Hunt is ever so willing to condone the announcer's mispronunciations and other mistakes, because he has a pleasant voice and cheerful manner. That is quite nice of Mr. Hunt, but it does not cure our squirms when we hear simple English words pronounced almost out of all recognition. Mr. Hunt tells us he likes the present announcer better than previous ones. Well, that's a matter of opinion. At least the previous announcer spoke cultured English in a man's voice, rich and full. That "pleasant voice and cheerful manner" seems to me to come over the air like a mother crooning her baby to sleep. His "Good night" reminds me even more so of the same thing.—Homo.

Mr. Howard and Race News.

I CAN only say you are wrong in your summary of my position re broadcasting. As a fact I took up the attitude that broadcasting is a news service, that the Government has no more right to interfere and say what shall be broadcast than they have to say what news shall go in a newspaper, and that the matter of broadcasting the races was purely a domestic matter between the B.C.C. and the racing fraternity. Now get that point clear—my argument was that it was not a question for the Government.

It was urged by others that the Government should interfere and force the Racing Conference to allow racing to be broadcast. All right, once admit the right of the Government to do that and where will it stop? I hold the B.C.C. should be as free as the "Dominion" to publish what it likes.—E. J. Howard.

[Our point was that Mr. Howard showed no concern for the people being deprived of their just rights in news. It is not a question only between the Racing Conferences and the Broadcasting Company. It is a question of the rights of the public to news at the earliest moment after the event. In this case broadcasting is being refused the privileges of the Press, and an attempt made to suppress the distribution of news by one medium while permitting it at the same time by another. Mr. Howard's attitude is not logical or democratic, and is opposed to the interests of a sport-loving people. Does he support the Racing Conferences in their demand for some of the few shillings of listeners? If broadcasting is a news service, as stated by him, why permit monopolistic and partial restrictions to operate against the people's interests?—Ed.]

9XF Trying Out.

I HAVE just received a letter from 9XF stating that he will be testing out every Sunday evening our time from 7.30 to 10.30 with the call WENR on 288 and 240 metres, and wants reports on tests; he is using 50,000 watts. Also, WLW will be on the air September 17, using 50,000 watts on 428 metres; these two stations want reports on their tests.—S. Ellis, Okato, D.X.

Best of the Week.

I WOULD like to express my appreciation of the concerts broadcast from 2YA on Sunday evenings. I do this because you have published one or two letters protesting against these broadcasts, and I am in a position to assure you that opinion is almost unanimous that these are the finest entertainments of the week. I make this assertion as one who is travelling in the radio business, demonstrating nightly, and coming into contact with practically every set owner in my districts. There is plenty of sacred music, etc., for those who want it, in the Children's Hour, services from N.Z. stations, and then from Australia. But it must not be overlooked that there is a large number of subscribers who do not want four or five hours of this. I think, however, that such concerts should not be relayed, which obliges many to listen to them or nothing.—C. J. Fleming (Auckland).

Broadcasting Announcers.

WILLIAM FERGUSSON and others have complained of the quality of announcing from 2YA. Now, Sir, let me tell these critics that this Dominion is fortunate in the standard of its announcing. 3YA, Christchurch, and 1YA, Auckland, have announcers who will compare favourably with any announcers in the world, and that is saying a lot. The present announcer at 2YA is fair, but I feel sure will improve, and the man at 4YA is also good, so in my opinion the listeners in New Zealand are very fortunate. I would draw the attention of the company, however, to the fact that from 2YA the quantity of news is not as great as from the other stations, nor does the man at the microphone use as much discretion in what he puts over the air. If Mr. Coates attends a dog fight we get the fact the same evening supplemented with a five-minute talk, which is nothing more than propaganda, which should be cut right out. Hoping for more news and less rubbish.—Listening-in (Rangataua).

Unusual Station.

COULD anyone give me the call sign of a station between 400 and 420 metres, which broadcasted a description of a boxing match at 11.45 p.m. on August 25. I picked this station up, but bad fading and heavy static made me miss the call-sign. The announcer called one of the fighters "Marks" or "Markis," and said that no blood had been drawn and that the boxers were not warmed up.—C. Hodgson (Wairoa).

"Rubber Dolls."

THE announcers advice to listeners on the 20th instant is as follows:—"Radio sets are not rubber dolls, and they will not squeak unless they are squeezed." Well, sir, I think there must have been some rubber dolls at the studio on this date, and they were getting squeezed very much, for when the Instrumental Studio Trio were announced it took them fully one minute tuning in. It would make a person sick listening to them. I would like to know why the same man sings four songs on end? Why not give him a spell and let him get his breath, for the further he goes the worse he gets.—Constant Reader (Petone).

Well Satisfied.

THE new size of "Radio Record" is certainly a big improvement on the old style, and I wish to congratulate you. The souvenir number was

absolutely A1. I see some of your correspondents are growling. All I can say is that some people are never satisfied. The programmes being put over the air are voted first-class by all those of our friends who hear them. Anyone who is dissatisfied with them ought to give up listening in.—"Interested Listener" (Granity).

Ahead of Australia.

I WOULD not be without this paper for double the price, as I consider "Megohm's" constructional articles alone are more than worth the subscription. I have constructed his five-valve shielded "Browning Drake" and can hold 2FC at speaker strength all day. The programme of New Zealand stations are quite all right, but I would like to see 2YA get going before 3 o'clock. In a farming community the farmers are about from eleven till three, and dealers have not a chance

to demonstrate, as you cannot hold a cow cocky in town after three. Again, Saturday is the busy day in a large number of country towns, and all we get on that day is football, a poor thing to demonstrate with. I am not growling at the football broadcast, but a little music from, say, 2 till 3 would be a benefit.—G.L. (Inglewood).

2YA The Favourite.

I HAVE read the criticisms in your paper one from Palmerston and one from Trentham, both running 2YA down and lauding Australia. Although 2YA fades here, on account of, I believe, earth condition, 2YA is everybody's favourite, and no doubt beats all the Australian stations, both in programme and clearness. However, if these two listeners like Australia best there is nothing to stop them tuning in there and staying there.—E.C.P. (Ngaruawahia).



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A Double-Roll Loud Speaker



ERE is a loudspeaker that will interest a great many listeners, especially those who are using horn-type speakers and wish to try the effect of

a cone type. This speaker will compare favourably with many cone speakers costing several pounds, and will outclass many in the reproduction of high notes, whilst still retaining the bass. If any constructor is not satisfied with clearness and faithfulness of reproduction from this speaker, he may look for the trouble in his receiver, as the speaker has been constructed and tested by the writer on a receiver giving thoroughly clear and undistorted output, which was faithfully reproduced by the double-roll speaker now described.

The Driving Unit.

THE success of this speaker depends to a great extent upon being able to procure a suitable driving unit, and such is now available in the "omni-phone" unit, which may be obtained from Harrington's (Ltd.) branches for 30s., plus 8d. postage.

This unit is primarily intended to place on tables, chairs, doors, etc., converting them at once into a loudspeaker diaphragm with surprising results, but an even better performance is obtained when the unit is made to drive a suitably constructed loudspeaker.

The unit is the well-known type in which a reed works between the two adjacent poles of a powerful permanent magnet, the whole being encased in a neat metal case, the driving spindle projecting from the end. On the end of the driving spindle is a knob which fits friction-tight, and may be

Quality Reproduction of High and Low Notes with Great Volume

By Megohm

removed for attaching to a cone. A flexible cord of about six yards in length is furnished with 'phone tips for connecting up.

THE frame is of simple construction and may be finished and elaborated according to the constructor's taste and ability. Soft wood is best for frames for speakers of this type, so O.B. rimu will be very suitable, and the thickness should be 3-8 inch. A board $11\frac{1}{2} \times 32\frac{1}{2}$ inches will provide material for the whole, excepting the piece to hold each side of the unit.

Three pieces are required $20 \times 3\frac{1}{2}$ inches, two pieces $12\frac{1}{2} \times 3\frac{1}{2}$ inches, and a small piece measuring $5 \times 2\frac{1}{2}$ inches, this latter being used to clamp the unit down. To hold the unit in place two small pieces $2\frac{1}{2} \times 1 \times 7-8$ inches will be required. These two are drilled near each end and well countersunk to take No. 6 1in. screws, and the 5-inch piece has a hole drilled centrally near each end to take similar screws. The object of the box-like frame is to assist in amplifying the deep notes, so that the $3\frac{1}{2}$ dimension should not be reduced, as the size given secures good even amplification. If more prominence is required for the deep notes, the sides of the frame may be made an inch or two deeper. If the back of the frame is left open, the speaker must be laid horizontally or hung on the wall, so that the back is closed, but if the back is filled in with three-ply the speaker may be used anywhere.

The four sides of the frame are put together with either inch nails or $\frac{1}{4}$ in. screws, according to the style of work-

manship being put in. The centre strip which holds the unit is put in position after the unit has been attached to it, and must be secured to the short-ends of the frame by $\frac{1}{4}$ in. screws to facilitate removal if necessary. The side of this strip on which the unit is placed must be half an inch out of centre, so that the driving spindle of the unit occupies a central position, so that the space at one side will be five inches and the other side 6 3-8in.

Attaching the Unit.

THE unit is attached to the centre strip by fixing one of the short 7-8in. pieces of wood about $1\frac{1}{2}$ in. out of centre, that is, in a position that allows the driving spindle of the unit to be ten inches from either end of the strip. Then a 3-8in. hole is to be drilled in the strip in a position to allow the flexible lead to be threaded through. Near the outlet for the cord on the unit there is a small projecting screw for which a depression must be made at the edge of the strip, and the unit will now lay snugly on the surface of the strip, with its beaded edge projecting. The other 7-8in. piece is pressed close against the other side, and secured with the screws. The 5in. piece is now secured to clamp the unit by means of a screw at either end of the 7-8in. piece underneath. A line must now be drawn inside each end of the frame, 6 3-8in. from one side. This indicates the unit side of the centre strip, and on the 5in. side of these lines two holes are to be drilled in each end of the frame for the securing screws, which can then be put in, completing the body of speaker.

The Paper Diaphragm.

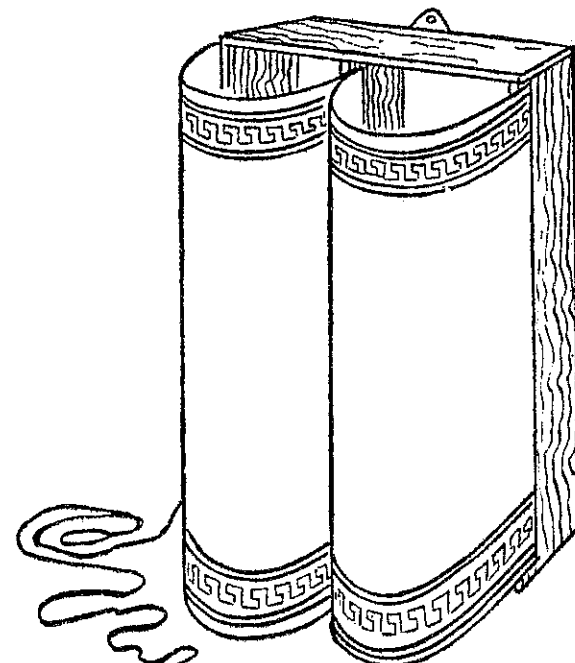
THE diaphragm is made from special cone paper if procurable. Johns, Ltd., Auckland, stock a sheet 25×25 for 4s. 6d. If other paper is used it must be as non-resilient as possible, and the nearest approach is the paper used as a cover for booklets, etc., by printers. The sheet is to be trimmed to 20×25 for use.

Constructors in country towns will be able to get from the local printing office a sheet of heavy pamphlet cover paper, and if this is 20×25 it will do quite well. If the sheets are smaller, get two and cut them each to $20 \times 12\frac{1}{2}$, joining the two edges to form the centre ridge by means of a half-inch joint of seccotine. Cover papers are often obtainable in attractive browns and greys, which considerably add to the appearance of the finished article. If the constructor is artistically inclined, embellishment may be added with Indian ink.

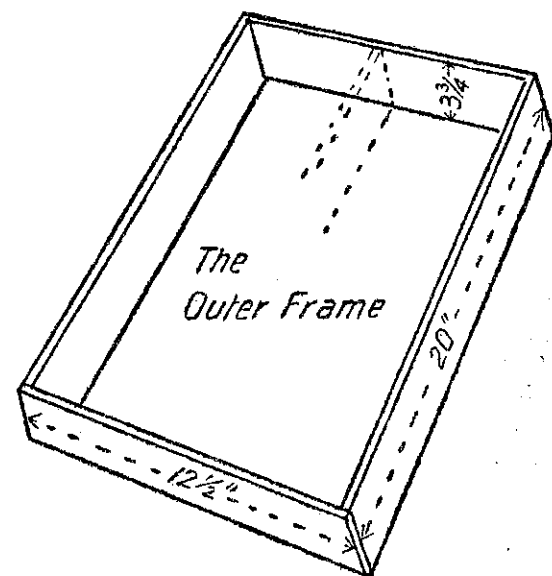
The sheet having been cut to size, it is folded in the centre by bringing the corners together, stroking the fold down with a paper-knife or other suitable tool. Then at the top and bottom of what are to be the outside edges, a pencil mark is made half-an-inch from the edge as a guide for attaching to the frame.

The Connecting Link.

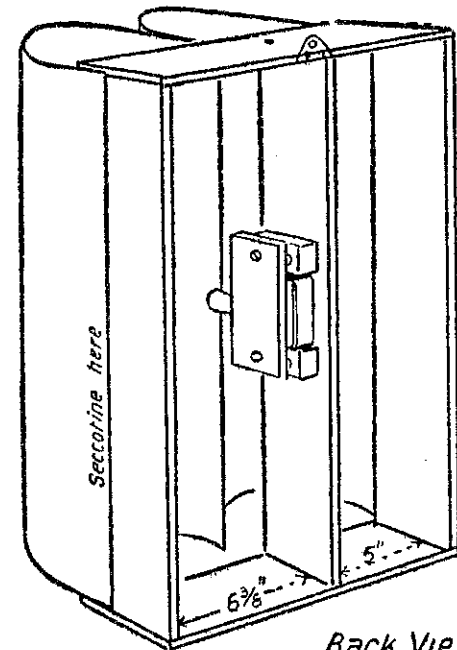
CONNECTION between the unit and diaphragm is easily established by means of a cork not less than $\frac{1}{4}$ in. diameter, cut to a length of $\frac{1}{4}$ in. A



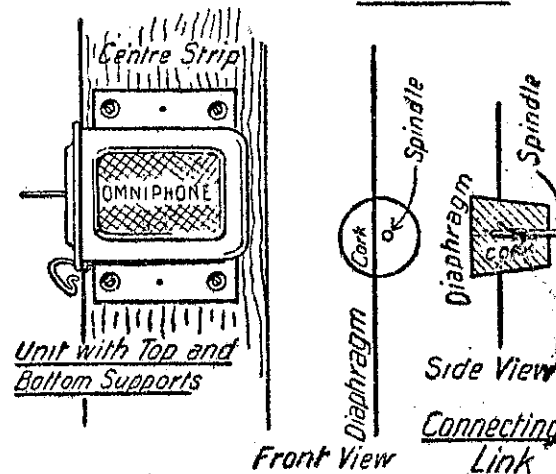
The Complete Speaker



The Outer Frame



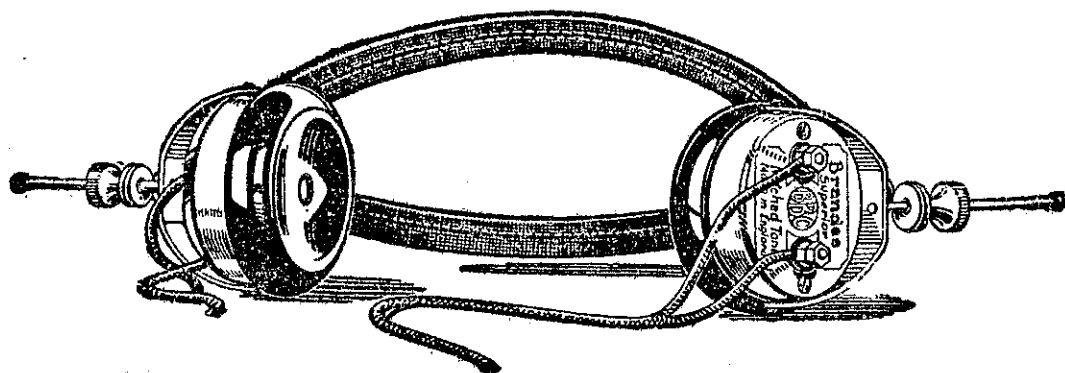
Back View



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hole is bored with an awl just slightly out of centre, to fit over the driving spindle, from which the small knob is removed. About 1-16in. from the hole a slit is made in the widest end of the cork about 1/4in. deep. The cork is now placed on the spindle, and the centre of the diaphragm gently worked into the slot, which can be slightly opened with the thumb, in order not to strain the reed of the unit. Now on one edge of the frame, spread seccotine to a width of exactly half-an-inch, not missing any portion. The best method of doing this is to put the seccotine on roughly from the tube, and then with a small folded piece of cardboard, spread the seccotine evenly, when the edge of the diaphragm may be applied, using the marks at the ends as a guide. The paper is carefully pressed down, care being taken to ensure that at the outer edge of the frame the paper adheres everywhere, as any unglued space is liable to cause unwanted vibration. The other end of the diaphragm is secured in the same way, and the speaker is ready for a trial run, which will be a revelation to listeners who have been accustomed to the more or less ordinary type of horn speaker.

As mentioned above, the speaker is capable of reproducing what the receiver is able to deliver. If the receiver gives crystal clarity, the speaker will reproduce it. If clear reception is not obtained, it will be a good cue to make improvements in the audio department of the receiver on lines that have been indicated from time to time in this column.

If the last valve is "going off," that is, losing emission, it may give distortion that is easily mistaken for "rattle" in the speaker, and if the last valve is not a power valve equal to handling the volume the receiver is capable of giving, then overloading of this valve occurs, with the inevitable distortion, and impaired reproduction.

It should be noted that an essential point is to have the diaphragm about 1/4 inch shorter than the frame, so that when standing on a table, the lower edge of the diaphragm is about 1/4 inch clear of the surface of the table.

If the diaphragm shows any tendency to sag, it should be supported by a thin rubber band attached inside the centre ridge about 2in. from the top, and over a small hook under the centre of the top of frame.

If a smaller unit is used to work the speaker, results in proportion to the capabilities of the unit are all that must be expected.

The "omniphone" unit is also suited to drive a linen-diaphragm speaker as recently described.

This type of speaker lends itself well to being placed (sideways) in a cupboard below the receiver.

An ingenious person could elaborate the frame to act as a protection to the ends of the rolls by enlarging the wood ends of frame to come out in a semi-circle projecting outside the rolls. A narrow ornamental edge of metal could then be fastened round, projecting over edges of rolls, but not touching them. The top and bottom edges of rolls must not be allowed to touch anything.

Linen-Diaphragm Speaker.

THE linen-diaphragm speaker is often referred to as the "Air-chrome" speaker, that being the name given to a commercial make on the American market.

A New "A" Battery

A NEW type of A battery accumulator has been invented by a Portuguese Jesuit.

As far as can be gathered, the Almeida accumulator resembles the existing ones in so far as it has its positive and negative plates with a container and electrolyte, but it is much lighter, while the container itself can be made from a cheaper material than hitherto. The electrodes themselves are particularly interesting, the positive plate being a mixture of what may be termed a "passive" conductor and a small proportion of silver, the latter acting as a catalytic agent.

Not Expensive.

SINCE the quantity of silver used is quite small, there is no fear of great expense entering into the cost of manufacture. Expressing it in simple language, we may say that as far as chemical reactions are concerned the silver only works by its "presence," and is not "consumed" in the actual sense of the word.

The negative electrode is essentially, but not wholly, metallic zinc, and the two electrodes work in an electrolyte made up from a solution of chloride of zinc with salts of the same metal (such as zinc bromide).

The accumulator is remarkable in that as soon as it is assembled it can be charged and discharged immediately without any of the usual process of formation, and this undoubtedly is a distinct advantage.

Examining this process, we find that what has been termed the passive conductor of the positive plate, e.g., graphite, generally works with the silver (reduced to powder) to facilitate the action that is being developed by the catalytic agent during the process of charge. As soon as a charging current flows electrolysis begins, first the bromide and then the chloride of zinc being decomposed.

Cannot "Sulphate."

FOR the purposes of explanation, the inventor splits up the actual charge and discharge periods into three phases.

Sulphation, that bugbear of the acid types of accumulators, unless due care and attention is paid to them is non-existent in the Almeida accumulator.

Parasitic discharges do not take place in the positive plate, since it only consists of a passive conductor and a catalytic agent; while, since the negative plate is practically metallic zinc resting in a solution of chloride or bromide of zinc, no internal reactions occur.

In consequence of this important feature it does not matter in what state of charge or discharge the accumulator may be left. It can be retained in that condition for an indefinite period without discharging itself or losing any of its energy.

These features, coupled with the fact that numbers of tests have established a figure of 93 per cent. for the accumulator efficiency, calculated on the usual basis, should serve to awaken a good deal of thought, and further developments are awaited with interest to see how far theory and practical laboratory experiment can be borne out when

it comes to be tackled from the point of view of bulk manufacture.

Large Capacity.

ADDED to this, weight for weight, the capacity is ten times greater; or, conversely, capacity for capacity, the weight is only one-tenth of the average weight for the other two types.

Tips and Jottings

New Eliminators.

TWO types of Igranac B eliminator are now obtainable, the V208 giving 200 volts, 30 milleamps from 240-volt mains, and retailing at £10 10s. The V208A is the same as above, with the addition of an A battery charger that automatically cuts out when the eliminator is switched on. Arrangements are made whereby the A charge can be varied from trickle to 1.3 amps. Price, £15 15s. Both units are enclosed in an attractive-looking pressed steel case, whilst the interior finish

suggests high quality. The International Radio Co., Courtenay Place, Wellington, are the distributors.

Series and Parallel.

WHEN battery cells are connected together in series their individual voltages add together, and the amperage is unaltered. When they are connected in parallel, the amperes are added together and the voltage remains that of one cell. Suppose we have ten accumulator cells of two volts and 5 amps. each. If these are connected in series by joining negatives and positives alternatively, the total output will be 5 amps. at 20 volts, but if they are connected in parallel by connecting all negatives together and all positives together, the output will be 50 amperes at 2 volts. It will be seen that in the latter case we are practically only enlarging a single battery cell by joining on extra plates of the same kind, although they are in separate containers, so that we increase the ampere hours without altering the voltage.



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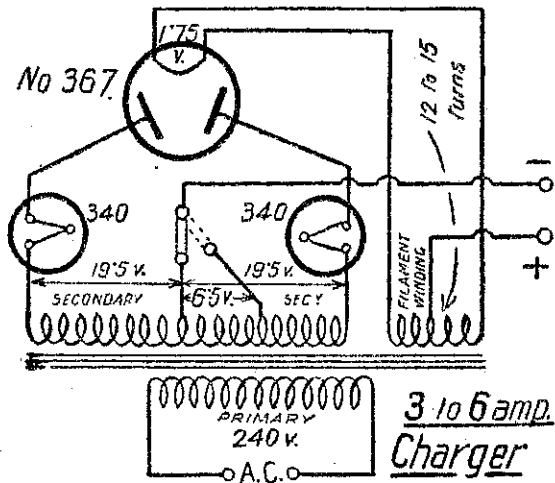
WELLINGTON,
Phone 20-937.

AUCKLAND,
Phone 45-696.

Battery Charger Giving 3 to 6 amps.

SOON after the publication of the 1.3 amp. A battery charger on March 2, an experimenter wrote inquiring if it would be possible to alter this charger to give a greater amperage. The charger can easily be constructed with differences in the winding that will allow a charging rate up to 6 amperes for a 12-volt battery. This correspondent very kindly reported at a later date that the alterations advised had been carried out, and gave the required result.

The only alteration to the trans-



former are in the primary and filament windings. For the primary winding, 24's s.w.g. d.c.c. wire should be used in place of 26's enamelled previously specified. In addition to previous recommendations it would be an advantage to put 35 less turns on the primary winding, making the total 1065. As the filament winding has to carry the output amperes in addition to its own 8.5 amps., 14's d.c.c. wire must be used instead of 18's. The stalloy should not be cut until the spool is wound, in case a slight increase of the window width is found necessary, but this would only be 1-8in. or 1/4in. at the most.

A Philips 367 valve is the rectifier used, which cost 17s. 6d. Two resistance lamps No. 340 costing 10s. 6d.

each go with these valves, but the experimenter in question used in their place two variable resistances, presumably power type rheostats, by means of which the output is controlled. Whether lamps or rheostats are used, one is placed in each plate circuit, and the two centres of the secondary winding are joined to form the negative output. The positive is the centre tap of the filament winding as usual.

There is a method by which the charging rate can be varied from 3 to 6 amps. by means of a switch as shown in the diagram, which switches over to a tap in one side of the secondary winding in order to reduce the charging rate to about 3 amps.

Original Specifications.

THE original transformer specifications require a stalloy core 1 1/2 by 1 1/2in., requiring strips 1 1/2in. wide, 3 dozen 3ft. long or 4 1/2 dozen 2ft. long, costing about 7s. 6d. at Johns, Ltd., Auckland. The spool ends are 3 x 2 1/2 in., and the inside width 2 1/2in. The secondary windings each consist of 126 turns of 18's d.c.c.

Constructors should obtain the March 2 "Record" from the office, full instructions being there given. If there is any difficulty in procuring Philips rectifiers and resistances through dealers, send direct to Philips Lamps, Ltd., Hope Gibbons' Buildings, Courtenay Place, Wellington.

This charging transformer rises very little in temperature on the higher rate.

Two constructors of the original 1.3 amp. charger state that they are charging with it 20-volt Varta B batteries in parallel, placing the resistance lamp in its socket so that only two pins are engaged, thus converting the charger to half-wave for that purpose.

When winding the 1.3 amp. primary the secondary voltage can be slightly increased by reducing the primary turns to 1060.

Erecting the Aerial Mast

Putting Up a 40-Footer

LAST week a handy mounting for an aerial mast was given which greatly facilitates erection. Putting up a 40-foot pole is no small matter, but if proper arrangements are made, all will go smoothly, and no mishaps occur.

A 40-foot pole should have three sets of galvanised stays of stranded wire similar to that used for clothes-lines, the latter being very suitable, and obtainable anywhere. One set of stays should be attached to the top extremity of the pole, and not from one to three feet down, as is often seen. The two other sets of stays are spaced out to divide the height about into thirds. Thus it will be seen that there will be three backstays, and three stays at each side to be secured at an angle towards the opposite pole or other end of the aerial, so that the pole is properly supported without depending upon the aerial in any way for support.

With the lower end of the pole bolted in the double support, the top bolt is placed in the upright with a hammer handy for knocking it in at the proper moment. The pole lays along the ground, halyards in place and secured to the lower end of pole. All stays must be secured in their respective positions, and the cleats to which all stays are to be fastened must be fixed in position, a separate cleat for each stay. A handy way of making cleats on fences is to hammer in two four-inch nails two or three inches apart, then bend them over in opposite directions, forming a secure fixing around which the stays can be

fastened or "belayed," as a nautical man would term it.

Not less than six, and if possible eight, people should be prevailed upon to lend their aid for a few minutes when all is ready. Two are required to attend to the backstays, and as soon as the pole has been raised to a sufficient angle they must assist in the raising by hauling on the backstay connected to two-thirds the total height. If the top backstay is hauled at this juncture, the pull only serves to accentuate the bending of the pole, and does not admit of the same lifting power being applied.

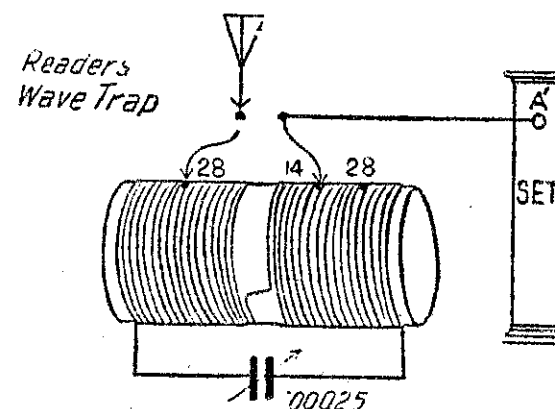
The two tallest assistants may lift the pole at a position near its base, whilst two others, each armed with a 10 or 12-foot pole with T-piece nailed at the top, alternately lift and support the mast, moving the point of support lower as the mast rises.

A person on each side looks after the side stays, steadying the mast to prevent it diverging unduly to either side. All persons handling stays must be ready to quickly secure them to the cleats whenever necessary.

If procedure similar to the above is carried out, the operation will soon be successfully concluded. Once the pole is upright the top bolt is hammered in, and all stays are secured as rapidly as possible, after which their lengths may be adjusted at leisure in order to get the mast exactly vertical. A 2 1/2in. square pole 40 feet long is very flexible when in a horizontal position, and far more difficult to handle for this reason than would be supposed, without experience.

A Reader's Wave-Trap

An Auckland experimenter sends the following wave-trap, which he claims will give very good results, increasing rather than decreasing volume. Our correspondent states that the trap has been tried out on four different sets in Auckland, and proved effective, cutting out 1YA and enabling Australian stations to be received on



the loudspeaker. An aerial and lead-in totalling 58 feet is used. The trap, it is stated, is also useful on a short-wave set.

Two separate coils consisting of 42 turns each of 24's d.c.c. wire are wound on a 3in. former 1 1/2in. long, a space of at least one inch between each coil. One coil is tapped at the twenty-eighth turn from centre, and the other at the fourteenth and twenty-eighth. The aerial to be tried connected to each of the taps for best effect.

There has been no opportunity for the writer to test this circuit. It is given here as it will no doubt interest some experimenters. It does not appear to differ very radically from other wave-traps in which a tapped coil and variable condenser are used.

Solution for Daniel Cells.

CONSTRUCTORS of the Daniel cell, gravity type, are reminded that the strength of acid solution should not be stronger than 1 of acid to 40 of water, and as weak a solution as 1 in 80 works very satisfactorily, and is often stated as the correct strength.

Short-wave Coil Connections.

WHEN connecting up coils in a short-wave receiver it should be remembered that the side of the primary connected to the aerial goes towards the secondary coil, and the side of the secondary coil connected to the grid is placed towards the aerial coil. The side of the tickler away from the secondary connects to the plate. The winding of all coils must be executed in the same direction.

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Glossary of Wireless Terms

From week to week we give here a section of the glossary of wireless terms from the "Listener's Guide."

LAY-OUT.—The positions the various components of a receiving set occupy in exact relation to each other. The layout of any receiver is not the haphazard thing which some imagine. It is no use placing a certain component in a certain position just because it looks pretty or makes the panel balance. When writers specify that certain components should be placed in a definite position, one may be quite certain that such an arrangement has a definite object in view, and that if results are to be expected from the set, then no deviation from the original design can be tolerated.

LEAD-IN.—The wire connecting the aerial to the aerial terminal of the receiving set. The lead-in should not be of a lighter-gauged wire than the aerial. It should be brought into the house through a porcelain or ebonite tube, which being an insulator prevents losses through electrical leakages.

LIGHTNING ARRESTER.—A device with a very small spark gap frequently connected between the lead-in and earth wires of the receiver, so that if the aerial is struck by lightning the discharge will jump across the gap and not flow through the circuit and damage the apparatus. Under the Underwriters' Association's regulations of New Zealand all receiving installations must be equipped with a lightning arrester.

LOADING COIL.—An additional coil, usually placed in the aerial circuit by which the wavelength of that circuit is regulated. Usually used for increasing the wavelength. See "Aerial Tuning Inductance."

LOCAL OSCILLATIONS.—See "Oscillator," "Heterodyne," "Beat-note."

LOUD SPEAKER.—Any receiving device designed to reproduce signals or speech loud enough to be heard without individual use of the conventional telephone receivers. The cone loud-speaker is a later development than the horn type which, however, retains great popularity.

LOW TENSION, or L.T.—See "Tension." Applied to "A" battery.

MAGNET, ELECTRO.—A fundamental portion of the usual telephone receiver or speaker. The electro-magnet has a permanently magnetised steel core, which keeps the diaphragm under a certain tension. When speech currents are circulating through the electro-magnet windings, the amount of this tension is varied, and the diaphragm vibrates, setting the air above it in motion and so giving rise to sound waves which reproduce faithfully the sounds at the transmitting end.

Tips and Jottings

Stalloy Strips Cheaper.

THE price of stalloy strips is now 1s. 6d. per dozen less than the prices ruling until recently, which means that a supply of stalloy formerly costing 12s. 6d. is now obtainable for 7s. 6d.

Valves in Series.

SOMETIMES valve filaments are operated in series, more usually in portable sets, when the "peanut" valves are used on account of their compactness. Whatever kind of valve is used, it is very important that each of them should require the same current (amperes), but the voltage is not so important. The applied voltage will be the total of all the filaments, whilst the amperes required will be that required by one valve.

MEGOHM.—One million ohms. See "Ohm."

MICROFARAD (Abbreviated Mfd.)—One-millionth part of a farad, and the practical unit capacity. See "Farad."

METRES.—Commonly used in wireless to denote wave-length. A metre is a French measure of length equal to nearly 39½ inches (39.37 inches).

MICA.—An insulating mineral commonly used for radio purposes in the component parts of fixed condensers.

MICROPHONE.—A device commonly used in a broadcasting studio for receiving sound waves which are thereby transformed into electrical variations and after being taken through the transmitter are subsequently radiated from the broadcast station's aerial.

MILLIAMPERE.—One-thousandth of an ampere.

MODULATION.—The controlling of the waves radiated from a broadcast station in such a way as to make them vary in exact reproduction of the current impulses received from the microphone. Modern practice is to make these impulses control the power available to the valve generators setting up the oscillations whose energy is radiated from the aerial system. Good modulation means clarity and faithful tone in broadcast transmission.

MORSE-CODE.—The system of dots and dashes by means of which international telegraphic communication is carried out. A working knowledge of the code, both for sending and receiving, is a necessary qualification for a transmitting license.

"MUSH."—Descriptive of blurring of signals either due to defective transmission or interference of other stations or perhaps howling valves on the receiver itself.

NATURAL WAVELENGTH.—Every aerial, coil or circuit has a natural wavelength, or responds to some given frequency by virtue of its inherent characteristic. If that natural wavelength differs from that of the signal to be received, the frequency of the aerial or circuit must be "tuned"—that is, by the addition or subtraction of either (or both) inductance and capacity—be brought to correspond with that of the signal.

NOTE-MAGNIFIER.—Alternative term for low-frequency (audio) amplification. Most commonly used in England.

Avoid Cheap Transformers.

CHEAP audio transformers are kept small in size, and do not contain the necessary amount of wire to give the necessary inductance in the primary winding. In consequence of this, the low notes of music are badly distorted or lost. Such transformers will provide such a decreased overall amplification that the falling of volume will be very evident.

Resistance Coupling Condensers.

IT is very important that a good grade of mica condenser be used as a coupling condenser in resistance-coupled amplifiers. The reason for this is that the slightest leakage in the condenser tends to allow the grid of the next valve to become positively charged. If this happens, distortion occurs, and amplification is considerably reduced.

RADIO DIRECTORY

What to Buy and Where

AUCKLAND

- ATWATER-KENT RADIO** .. Frank Wiseman, Ltd.
170-172 Queen Street, Auckland
- ALTONA & HAMMARLUND-ROBERTS SETS.** Johns, Ltd.
Chancery Street, Auckland.
- AMPLION LOUDSPEAKERS** .. All Radio Dealers.
- BREMER-TULLY RADIO** .. Superadio, Ltd.,
147 Queen Street, Auckland
- BURGESS RADIO BATTERIES,** All Radio Dealers.
- CE-CO VALVES** .. All Radio Dealers.
- FADA RADIO** .. National Electric & Eng. Co., Ltd.
Customs St.; Radio Supplies, Symond St.
- FEDERAL, MOHAWK, GLOBE** Federal Radio House,
8 Darby Street, Auckland.
- FERRANTI RADIO COMPONENTS** .. A. D. Riley and Co., Ltd. Anzac
Ave., Auckland, and all leading dealers.
- GILFILLAN AND KELLOGG** . Harrington's, Ltd.,
138-140 Queen Street, Auckland.
- GREBE RADIO** .. Howie's,
Dilworth Building, Custom st., Auckland.
- MARCONI ECONOMY VALVES** All Radio Dealers.
- MULLARD VALVES** .. All Radio Dealers.
- RADIOLA RECEIVERS** .. Farmers' Trading Co., Ltd.,
Hobson Street, Auckland.
- RADIOTRON VALVES** .. All Radio Dealers.
- RELIANCE BATTERIES** .. Reliance Battery Mfg. Co., Ltd.,
N.Z. Made 96 Albert Street, Auckland.
- T.C.C. CONDENSERS** .. A. D. Riley and Co., Ltd. Anzac
Ave., Auckland, and all leading dealers.

COUNTRY TOWNS

- BROWNING-DRAKE SALES AND SERVICE** .. J. H. Sinclair,
Otane, H.B.
- CROSLEY ELECTRICAL AND BATTERY MODELS** .. The Forrest-Crosley Radio Co.,
Ltd. Cuba Street, Palmerston North.
- CROSLEY RADIO SALES AND SERVICE** .. D. A. Morrison and Co.
The Avenue, Wanganui.
- GAROD, CROSLEY, RADIO AND ACCESSORIES** .. The Hector Jones Electrical Co.
King and Queen Streets, Hastings.
- GILFILLAN, FEDERAL, STAN-DARDYNE AND GARRARD ELECTRIC RADIO — ALL ACCESSORIES** .. W. M. Pitcher and Co.
Hamilton.
- GREBE, CROSLEY AND RADIOLA SERVICE** .. E. Dixon and Co., Ltd.,
Hawera.
- RADIOLA DEALER AND SERVICE** .. G. C. Carrad.
140 The Avenue, Wanganui.
- ROLA CONE SPEAKERS** .. J. B. MacEwan and Co., Ltd.,
Federal Radio Dealers, New Plymouth.
- PHILIPS VALVES AND APPARATUS** .. All Good Radio Dealers,

I HAVE recently been experimenting with screen grid valves, and, although not satisfied with earlier results, have one working quite well now as a high frequency amplifier on the short wave receiver.

The valve used is the Philips A442. This fits into the ordinary American valve socket, the plate lead coming through the top of the valve.

At present it is being used as a separate unit, being completely screened, the leads going through ebonite bushings.

The tuning is not very critical. I have found that if a station is strong enough to be readable when properly tuned in, it can be heard if the screen grid circuit is within, say, three or four degrees either side of the resonance point.

Beside the gain in signal strength, the screen grid steadies the receiver wonderfully. Body capacity is entirely absent; one's hand can be put to within the field of the coils before any difference is noticed. This applies to the lowest wave-length the receiver is capable of receiving, about 15 metres.

The dial readings are altered all through the scale, less capacity being required than before in the tuning condenser. This applies to a greater extent to the lower wave-lengths of each coil; in fact, it has been necessary to wind another coil to fill a gap.

THE circuit used is similar to those published for all the screen grid valves. Instead of the usual coil for aerial coupling, I am using a midge condenser with all plates, but three removed. With this arrangement there are not any "dead spots"; the receiver oscillates smoothly "all round the dial." It was not found necessary to insert radio chokes in any battery leads as is advised by some writers. Bye-pass condensers are inserted between the screen grid and plate leads, and the screen which is connected to each.

League of Nations' Broadcasts.

REPORTS on the international broadcasts of the League of Nations, which are now being tabulated, may lead to the establishing of a regular short-wave radio service for the broadcasting of these meetings. As an experiment, the sessions of the last meeting of the League were broadcast by station PCLL, Kootwijk, Holland, on a wave-length of 18.4 metres, using a power of 25,000 watts.

The announcements were made in English, French, Dutch, and Japanese, and all listeners were asked to send a postcard and describe the strength and clarity of the signals. So far the success of this test is not known, for reports continue to be received from listeners at distant points, but it is thought that there is sufficient interest

Round the World on Short Wave

Notes of special value to short-wave enthusiasts are contributed weekly to the "Radio Record" by Mr. F. W. Sellens, Northland, Wellington. Observations from others are welcomed.

in these broadcasts to justify the construction of a special high-power short-wave station which can be used for broadcasting and for carrying on the League's own business.

While this is not the first time that addresses in these meetings have been broadcast, it was the first time that short-waves have been employed for the purpose.

Radio was first used by the League of Nations in 1925; in 1926 an opening address was sent over long-distance lines from Geneva to Prague, and there broadcast. Later, English, Danish, German, and French stations joined in broadcasting other important speeches from the meetings.

All this was done on the regular wave-length used by these stations, and reception was limited to a comparatively small area. The Dutch short-wave station at Kootwijk, which is frequently heard in this country, was originally constructed to carry on radio-telephone experiments with Java.

Reception of distant stations has not been quite so good during the past week; 5SW and PCJJ have both been troubled at times with rapid fading.

Saturday, August 25.

At 6 p.m. 5SW was about R5 on the speaker. An operatic tenor was heard first singing some of Caruso's songs. This was followed by a lady singing "Robin Adair" and "Home, Sweet Home." Reception was both clear and steady.

2XAD was first tuned in at 2 p.m. Strength R5. The programme was supplied by the National Broadcasting and Concert Bureaux. One singer, who was apparently a bit of a humorist, said that when a boy he won a gold watch. A visitor to his school offered a gold watch to the best singer. Only two boys, another and himself, had the courage to go on the platform. After hearing the other boy sing, the visitor gave him, the speaker, the watch, saying he could not possibly be worse than the other!

At 2.30 p.m. the first part of the programme was completed, and they went over to Reilly's Lake House. Lake honey, Togo (?) Springs, for dance music. From 3 till 3.30 p.m., when they signed off, reception was R8 on speaker.

PCJJ was not heard till about 4 p.m. when their regular transmission was heard. Very clear and steady till signals got fairly weak toward 6.30 p.m.,

when rapid fading was noticed.

Signal strength at its best from 4 till 5 p.m. was R6.

Sunday, August 26.

At 12 a.m. KDKA was about R2, later on when I tried for them they were either off the air or too weak.

2XAF were not up to their usual form. They reached R6 at 3.30 p.m., but static spoilt reception.

The Crosley Radio Corporation station WLW, on about 52 metres, was heard soon after 3.30 p.m., but a slight fault was discovered which put the set out of action till they were off the air.

Static was very bad during the evening.

Monday, August 27.

3LO from 6 a.m. till about 6.15 a.m. were having some trouble, as music came through very patchy. From 6.15 reception was splendid, best volume ever, but, as is usual with this station, fading was bad.

During the evening, 2FC on 28.5 metres were broadcasting their usual programme on dual wavelengths.

Tuesday, August 28.

5SW was R2-3 at 6 a.m., increasing to R5 at 7.30 a.m., but rapid fading spoilt intelligibility.

Wednesday, August 29.

Reception of 5SW was similar to Tuesday. PCJJ was also subject to rapid fading. They were very weak at 5.30 a.m. At about 6.15 a sudden increase in volume was noted. A lady was talking for a while soon after 6 a.m., but could not understand the nature of her speech.

At 10 p.m., on about 70 metres, a foreigner was talking very fast. It may have been RFM, call sign not heard. Strength, R8.

Thursday, August 30.

5SW was again spoilt by rapid fading. The carrier only was audible at 6 a.m. Strength increased later, but too unsteady to enjoy. 2FC on 28.5 metres, was very good until they went on relay for the talk by Cardinal Ceretti, when they were unsteady at times, but every word was clearly heard at full speaker strength.

Friday, August 31.

PCJJ, at 5.30 a.m., was R3-4, with rapid fading; signals increased to R6 at 6.30 a.m., and then got weaker again. The fading was not noticed when volume was at its best.

5SW, a little stronger than previous mornings, but rapid fading still very bad.

A strong carrier on about 50 metres, where the German is sometimes transmitting was heard for some time, but not any talk or music.

At 17 p.m. the carrier only of 5SW was audible.

The strength of reception given is on the loudspeaker, using the screen grid mentioned.

Radio Transmitters.

At a meeting of the Second District Radio Transmitters' Association held on August 28, it was decided to affiliate with the New Zealand Association of Radio Transmitters (N.Z.A.R.T.),

and a Wellington branch was formed. The following were elected as the branch executive: Chairman, Mr. R. Clark; vice-president, Mr. J. Johnson; secretary-treasurer, Mr. V. Parminter; committee, Messrs. F. Blackwood, C. H. Brown, H. C. Dixon, F. W. Sellens, and J. G. Tinney. Social and Listeners' Committees were also formed.

The object of the N.Z.A.R.T. is to increase interest in amateur radio in every way possible. Regular meetings are to be held at which lectures and demonstrations by capable persons will be given on subjects of particular interest to short-wave amateurs.

Slow Morse transmissions for the beginner have been arranged. All interested are invited to join. The short-wave listener is eligible; the listener of to-day is the transmitter of to-morrow. Full particulars available from Mr. V. Parminter, hon. secretary, 8 Arlington Street, Wellington.

The revised list of short-wave stations will probably be ready for the next issue. The call, wave-length, location, and where possible, the power, and schedule in New Zealand time will be given.

During the week 2FC, when broadcasting on 28.5 metres, announced that tests were being carried out with a view to the interchange of broadcast programmes with America.

New Use for X-ray

A NEW use for the X-ray has been recently developed by a German scientist. It makes possible the use of these rays in photographing radio receiving sets, parts and other electrical equipment; thus bringing out constructional details of such apparatus which would be nearly impossible to illustrate by line drawings or diagrams.

At least one German publication has made arrangements to illustrate a series of constructional articles with X-ray photography of the sets and parts in place of the usual blue print and diagrams.

An important feature of this method of illustration is that it is a comparatively simple matter to retouch such photographs to bring out important features of the set or apparatus and soften or omit others.

THE San Francisco "Radio" remarks:—"Some constructors seem to think that they know more than the experienced designers of circuits which employ such tubes as the shielded-grid and a.c. types. When their own 'improvements' fail they are prone to blame the circuit, which they have not followed, rather than their own departures therefrom. Fully half the questions which a troubleman is expected to answer arise from neglect to follow accepted practice." The same comment may apply when amateur constructors blame the new shielded-grid valves for not coming up to expectations. Simply the lay-out is at fault though the circuit may be correct.

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