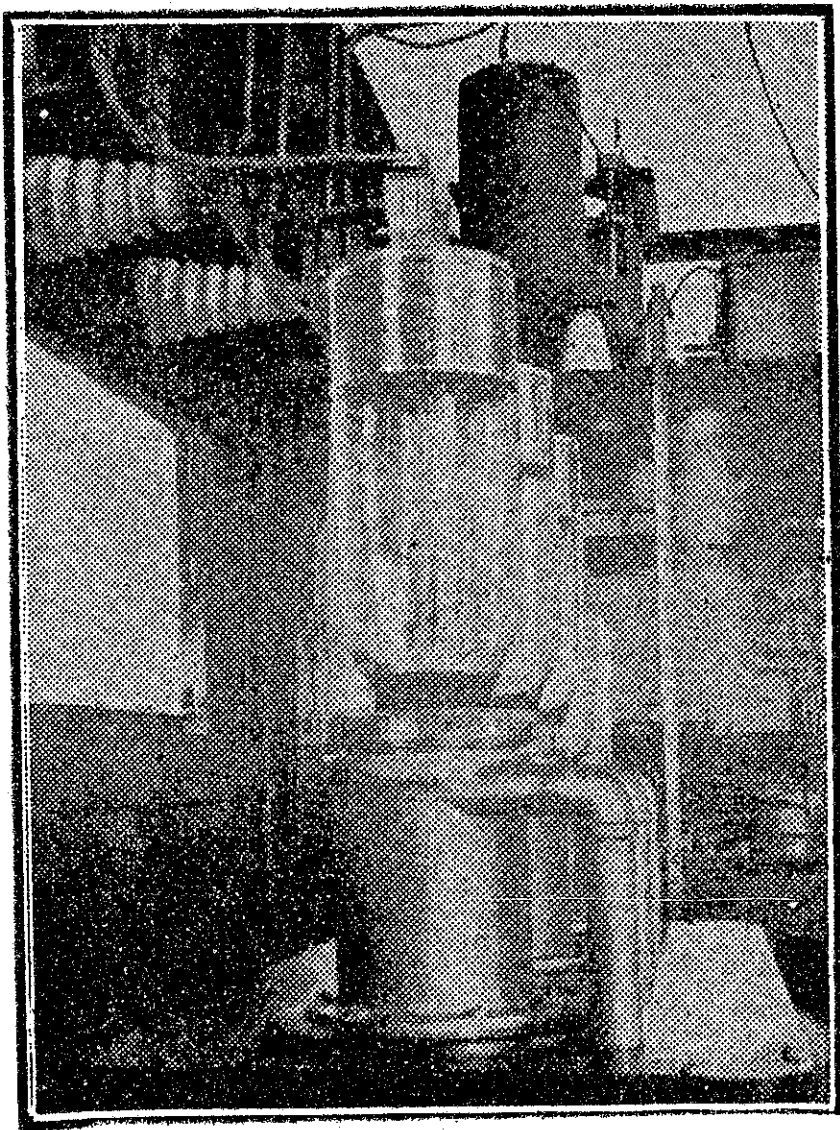


THE RADIO RECORD

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Vol. II., No. 14.

WELLINGTON, FRIDAY, OCTOBER 19, 1928.



Near view of the large water-cooled valves which are a feature of 2YA's transmitting plant.

Water-Cooled Tubes

The Principle Described

THE water-cooled tubes used in the high-power stages at 2YA are somewhat of a mystery to many people, as they cannot understand how it is that water can be used at all. The photograph shows three of the tubes in question and gives a good idea as to how the cooling is accomplished.

The construction of the tubes differs from that of the ordinary receiving tubes, in so far as the plate is not sealed inside the glass, but is welded to the glass and in actual contact with the air.

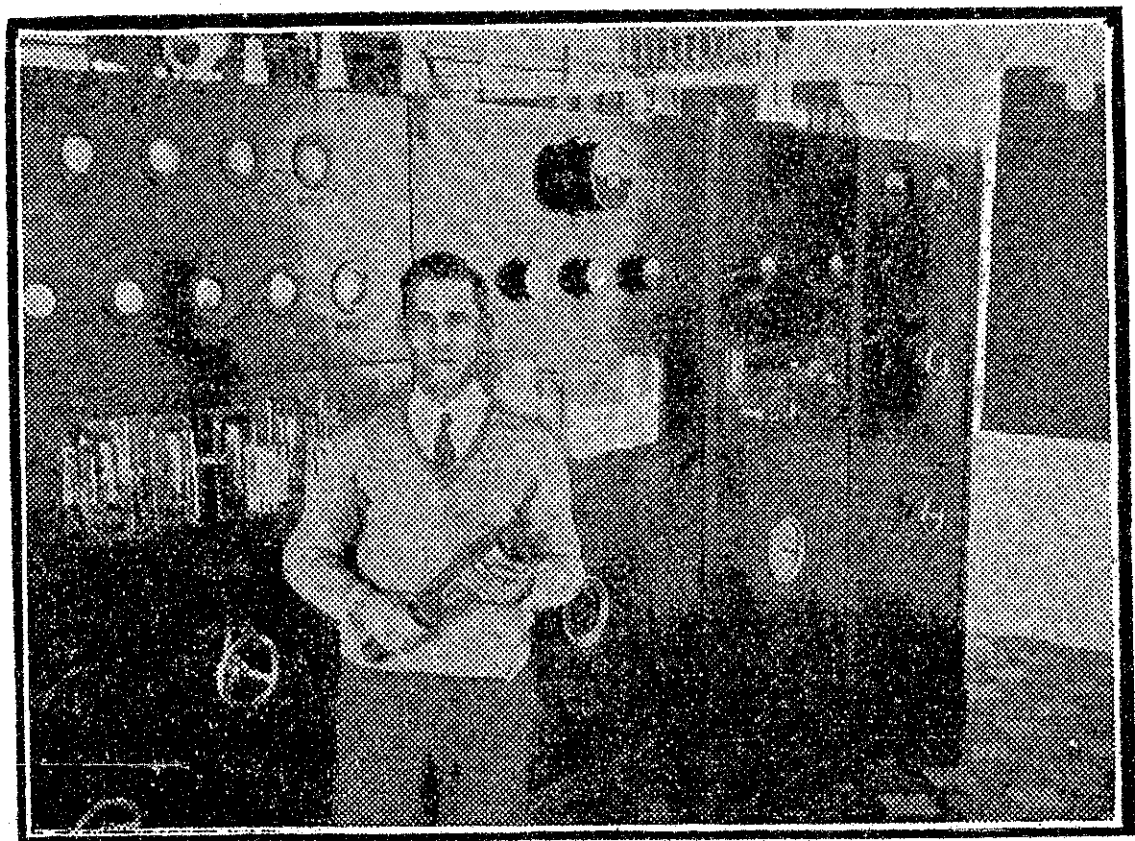
(Continued on page 2.)

Behind the Scenes at 2YA

On this and the succeeding page we print a series of unique photographs of the powerful transmitter at 2YA.

Hitherto, the only views of this plant that have been published have been front views of the six panels, but readers of the "Radio Record" will now have an opportunity of forming an idea of what the mass of intricate mechanism behind the front is like. It may also be added that there is a network of conduit and wires beneath the flooring.

An interesting description of the principle of the water-cooled tubes which are used in the transmitter is also given.



Four of the panels are shown in the front view of the transmitter. An idea of the size can be formed by a comparison with the engineer, who is holding in his hands one of the water-cooled tubes.

Some Coming Features on the Programmes.

Some outstanding attractions will appear on future programmes from the various stations. Among them are:—

Addresses by Rev. H. W. Whyte, Indian Missionary.

"Jhelum River, for which Miss Hilda Hutt and Mr. A. G. Thompson will be the vocalists (3YA).

The musical plays "Gipsy Love" and "To-night's the Night," are scheduled at 3YA.

An evening's programme of Indian music at 2YA.

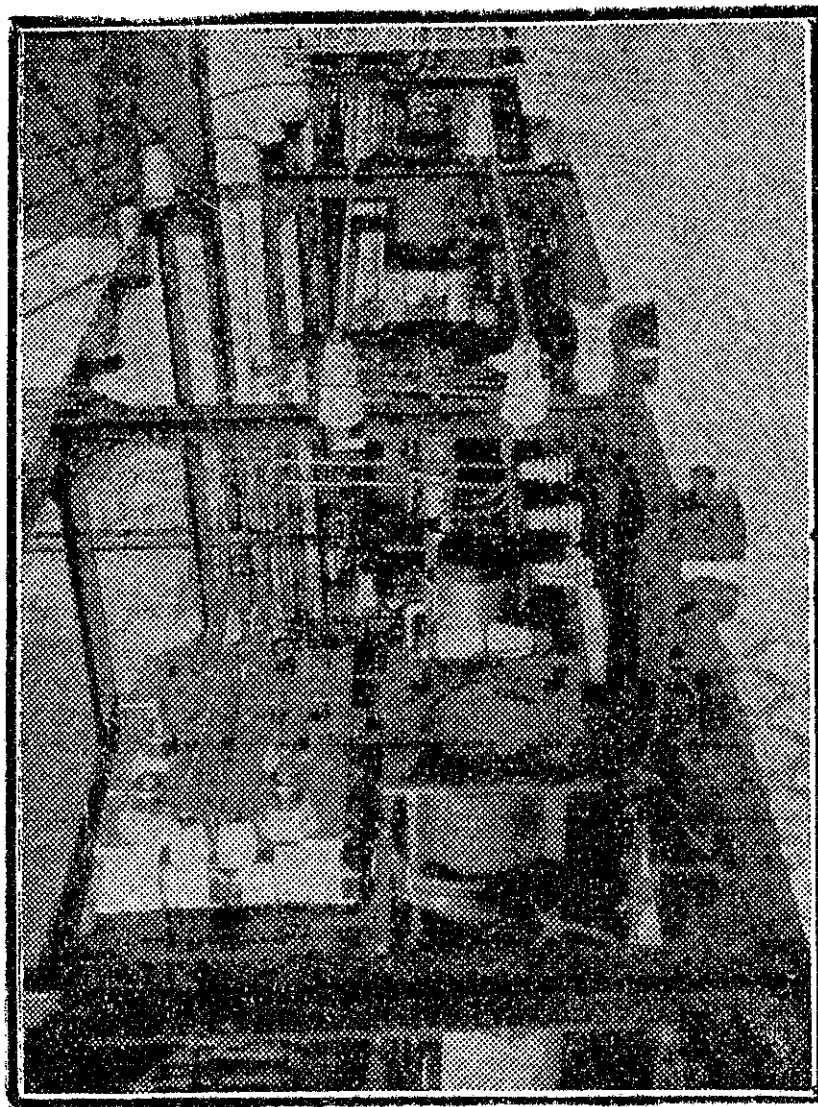
Racing carnival week programmes at 3YA.

Wartime songs at 2YA.

Leckie v. Radford boxing match (3YA).

Schubert Centenary programmes.

Election results.



Portion of the front half of the transmitter, looking down on the front panels.

New Yankee Set

THE Graybar Electric Company, sales subsidiary of the Western Electric Company, announced recently its entry into the radio receiving set field. An innovation in radio set merchandising was promised. The production and marketing plan calls for five complete receivers and loudspeakers. Four of the

sets are to be of the all-electric type, to operate from light sockets.

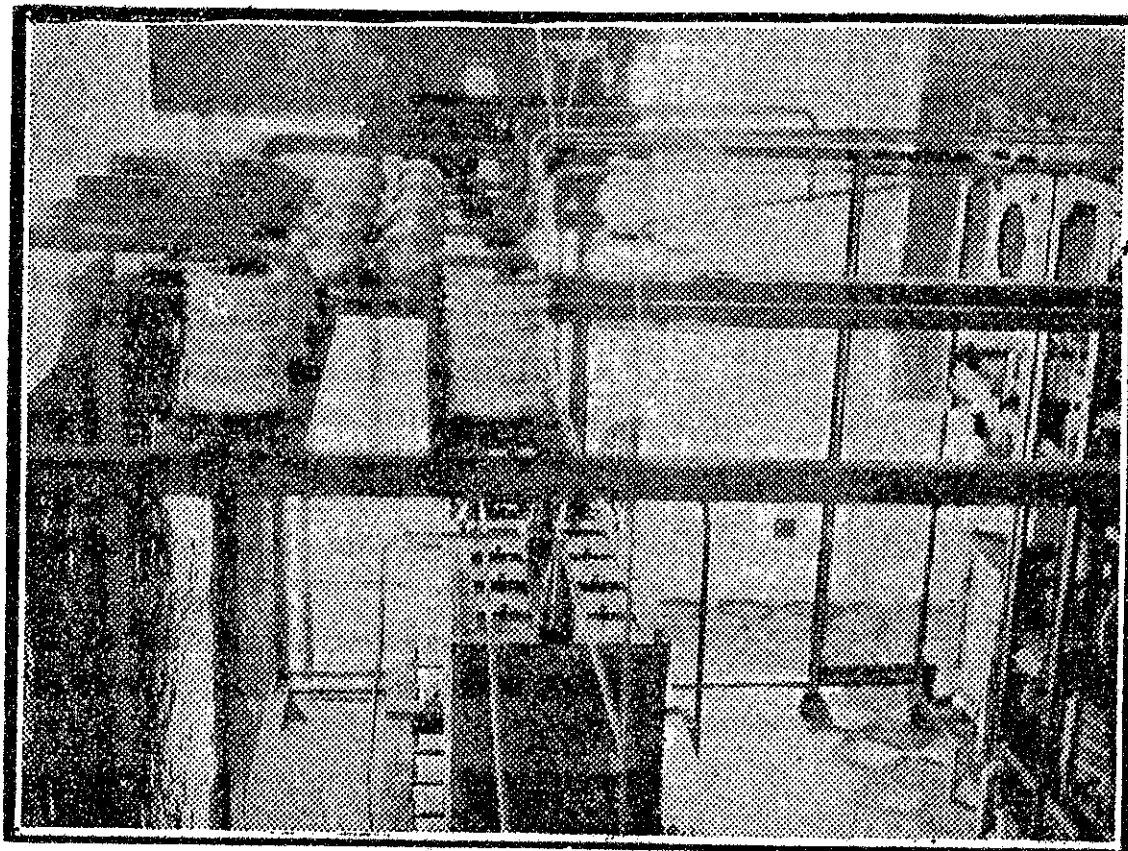
The new products are to be marketed through the Graybar system of wholesale branches in seventy principal cities of the United States, which are now said to do an electrical business of more than 70,000,000 dollars (£14,000,000) a year. The first of the new models was to be on the market by September 15. The line will comprise six and eight-valve receivers.

According to George E. Cullinan, vice-president and general sales manager of the company, the two larger models manufactured, of eight valves each, will incorporate a "new and revolutionary type of circuit."

"The Graybar company, in entering the receiver field, will not engage in radio valve manufacture, but will act as distributor for such equipment," he said. "The sets are to be sold without valves or equipped with RCA radio-trons at the option of the purchaser."

"We are entering into radio conservatively," said Herbert Metz, advertising manager, "with what we believe is the best possible background in all forms of electrical communication. The line will be made available to select dealers in every branch of the market. Under present production schedules all models should be in dealers' hands by the middle of next month" (September).

The list of models includes one with a built-in loudspeaker of the dynamic type. Others will be available with a special table containing a built-in magnetic-type speaker.



Another view looking down into the transmitter, showing protective spark gaps, H.T. filter condenser and resistances.

The plate is a cylinder of copper shaped like an elongated sewing thimble (but much larger), and is fixed to the glass bulb by means of a vacuum tight weld. The junction between the copper plate and the glass bulb can be seen in the photograph at the lower end of the glass portion. The purpose of the glass is merely to support the grid and filament which extend downwards into the inside of the plate and cannot be seen in the photo. The vacuum is, therefore, inside the plate, not the plate inside the vacuum as in the usual types.

WHEN inserting a tube in its receptacle, the plate, which is fitted with a clamping flange, is lowered into the water-jacket as shown and clamped tight. Water is forced round the outside of the plate by means of a circulating pump, and the temperature of the plate is kept at a safe value.

As the water is actually in contact with the plate, which is also at a potential of 10,000 volts, it is necessary to provide against electrical leakage.

This is accomplished by using a good grade of water (for pure water is not a conductor of electricity, as many people think), and connecting a long coil of rubber hose between the water mains and the tube.

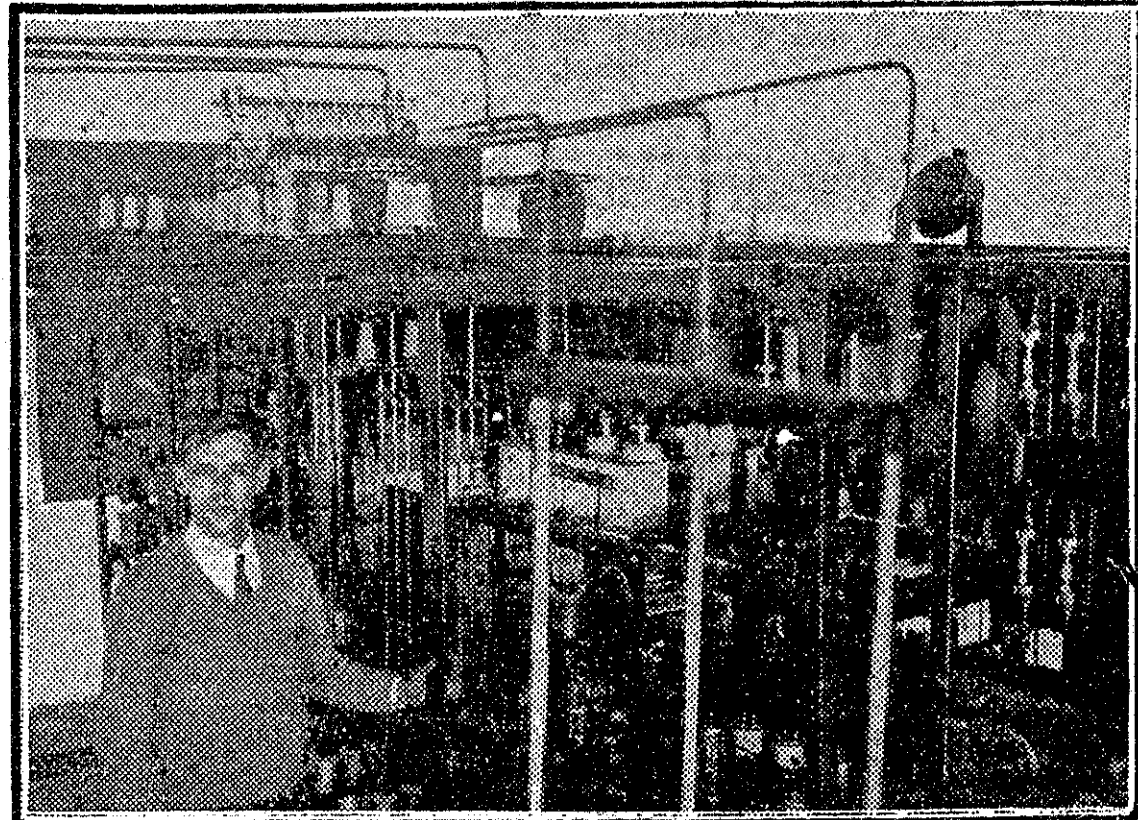
When it is considered that the plate current of each tube is over 500 milliamperes at 10,000 volts and that the filaments each require over 40 amperes at 24 volts, some idea may be gained of the amount of heat required to be carried away by the water.

New Super-Het.

Armstrong's Latest.

According to advice from America a further patent of considerable interest has been issued to Mr. E. H. Armstrong, the inventor of the superheterodyne receiver. The new patent is designed greatly to reduce the size of the receiver, and it is stated that it will permit of a reduction of three

valves in the set without any loss of efficiency. The full details of the improvements covered in the patent have not yet been made available, but according to brief reports the first valve in the receiver is made to perform the function of the frequency changing oscillator as well as the first detector. By other improvements it has been found possible to use only one intermediate amplifier between the first and second detectors, so that only three valves are required up to the second detector. In many cases it is stated that a fourth valve as a low frequency amplifier is all that is necessary to complete the receiver, and that two will give full loudspeaker volume from very distant stations. Thus Mr. Armstrong's new superheterodyne receiver will have only four or five valves, instead of six or eight.



A view taken in the interior of the transmitter, again conveying an excellent idea of the mechanism behind the front panels

Radio Round the World

ENGLISH papers refer to the fact that the prisoners in Wormwood Scrubbs have been given a series of educational talks over the wireless as part of the plan instituted by the Director of Education of the British Broadcasting Corporation. The prisoners listen in, and follow the talks with the aid of pamphlets published by the British Broadcasting Corporation. They follow up the talks with books from the library.

THE Soviet Government gives short shrift to transgressors under the wireless laws. It appears that the maximum penalty for "clandestine listening" is three years' imprisonment. The other day an unhappy young man in Leningrad was sentenced to three months' hard labour for listening without a licence, the leniency of his judges being due to his extreme youth. The authorities estimate that the number of "pirates" in Leningrad amounts to 15 per cent. of the total of listeners. After such a sentence, however, this number should rapidly decrease.

ONE of the "chain" broadcasting systems in the United States is undertaking to supply schools with a series of educational orchestral broadcasts, to which it is considered about 12,000,000 children will listen. The use of broadcasting in school work is rapidly developing both in America and in Britain. Four teachers' training centres in Scotland have installed receiving apparatus in their buildings, and teachers in the making will learn how to instruct with the aid of radio. This is the first move of this kind in the Empire.

2FC has established a reputation in foreign countries above that of every other station except, perhaps, 2LO, London. This has been brought about by 2FC's practice of broadcasting its programmes on special short waves, which enables them to be heard thousands of miles away. Particularly in the United States is 2FC esteemed, as was shown recently when the American station WGY picked up 2FC's broadcast and relayed it for American listeners to hear. As the result of that broadcast at least sixty-five United States newspapers (possibly very many more) had long reports about the Australian station and the high quality of the programmes.

RESIDENTS of Crookville, Ohio, were puzzled for some time by an uncharted station "PDQ," which came on the air and blotted out everything else. He was heard, too, from loud-speakers installed in shops, boosting certain lines of goods. Complaints brought about searchers, but without avail—PDQ was still as elusive as ever. Finally the offender was tracked down. The signals were never on the air at all; they originated through a telephone microphone attached to the aerial and earth just outside the receiving set. PDQ had first been employed to boost the goods of a certain shopkeeper. Other prominent business men, being in the know, used the PDQ to advertise their goods. As the story passed from one to another the whole country became "in the know" and the wonder of the mystery station died a natural death.

SHAKESPEARE went on the radio in London recently when for the first time a more or less complete version of "Hamlet" was broadcast. As

only an hour and a half was available for the performance, there were necessary cuts, but a reader linked up the breaks in the play, and the main scenes were presented in their entirety. Whether the ghost of Shakespeare listened in on the spectral performance or not no one has hazarded a guess, but if he did the sounds of his famous character's words coming from empty air probably succeeded in making "each individual hair to stand on end like quills upon the fretful porcupine."

AN American listener-in sends in to the Auckland "Sun" a copy of his log of 231 stations, of which he has heard and of which he has had verification. The list is a remarkable one and includes stations in every State in America, Canada, Mexico, four English stations, Scotland, South America, Wales, Japan, Germany, France and 1YA, 2YA and 4YA, New Zealand. All stations were on the broadcast band as Mr. Kenton does not possess a short-wave receiver.

MR. A. E. BURBURY, chief engineer of the 2FC (Sydney) service, in concluding an address, remarks on the future of photo transmission, said: "Think what it would mean when the Melbourne Cup was run. Every house with a telephoto receiver—and this by the way is not an expensive apparatus—would have a photo. of the finish of the big race in their own home, a few minutes after it was run." He is optimistic. If the V.R.C. are like the New Zealand "sports" such a transmission will be banned!

DURING the month of August Victoria again showed a greater increase in the number of licenses issued than any other State. In addition, Victoria is still leading in the total number of licenses in force, in fact, there are still more licenses in force in Victoria than in the rest of the Commonwealth. The official figures issued by the Postmaster-General's Department for August showed that there are 8.10 licenses in Victoria to every 100 people. The next best to that is in South Australia, where there are 3.66 licenses per hundred people. The ratio in New South Wales is 3.55, in Queensland 2.86, in Tasmania 6.16, and in Western Australia 0.98. The ratio in New Zealand is approximately two licenses per 100 of population. The increase in the number of licenses in Victoria during August was 2068, in New South Wales 2056, in South Australia 352, in Tasmania 163, in Queensland 51, and in Western Australia 46.

REVIEWERS of current radio events are confident that aircraft radio equipment is in a high state of development, and it is to be hoped that the radio industry follows up the advantage which has been gained by the recent practical demonstrations of radio service to long distance flights. A nation-wide net of radio communication to support commercial aviation is radio's newest mission which should be pursued with the utmost vigour. Only with such co-operation will radio demonstrate its true value as an adjunct to air navigation.

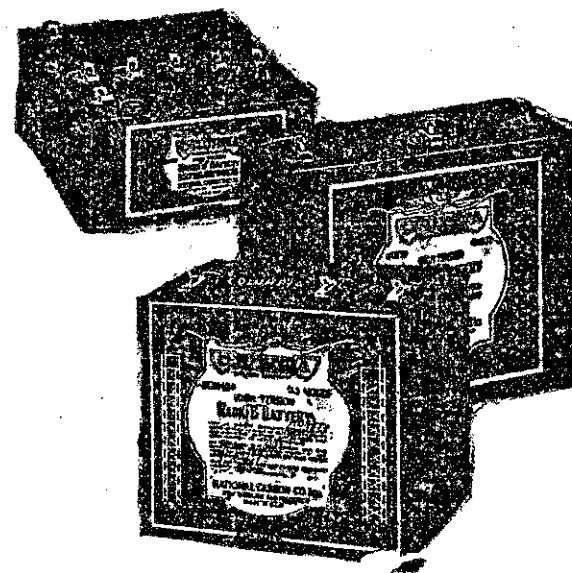
A SYSTEM is being put into operation in the States to make avi-

tors along the Los Angeles-San Francisco route, fully aware of the ever-changing weather conditions. Two terminal stations are to be erected at the ends of the route, supported by twenty-two observation stations. The total time for the collection of reports at both terminals and the exchange of complete data between them will be less than twenty minutes. The reports are to be made three times daily and are to be communicated by telephone and radio to trained meteorologists, who will forecast flight conditions and advise departing pilots which of five alternate routes should be followed.

MORE than 10,000 members of the British Legion visited France and Flanders in connection with the Menin

Gate commemoration service. Of the many memorials in France and Flanders, the massive archway, known as the Menin Gate, stands a monument to those who paid the capital price in the Great War. The memorial stands on the scene of some of the bitterest fighting, and bears the incised names of 56,000 officers and men who died in defence of the salient and have no known graves. Barriers were erected to keep the crowds from the town (Ypres), but they and the vast multitude who were present in spirit were able to share in the ceremony. Holiday programmes were suspended to be replaced by the broadcast of the solemn service.

THE faith of the British public in Baird's system of Television is shown by the fact that the lists of 1,000,000 shares recently offered the public closed at 10.30 a.m. on the day of issue.



Improve Your Reception with Powerful Columbia Batteries

COLUMBIA Radio Batteries are made under direct supervision of one of the greatest research laboratories of the world. Only the highest quality materials are used. Every battery is thoroughly tested after every stage of manufacture. That is why Columbia Radio Batteries are the most dependable, the most satisfactory and give the longest service.

There is a Columbia Radio Battery for every type of set. All are of the same high standard. Always insist upon Columbia.

For sale everywhere.

Columbia RADIO BATTERIES

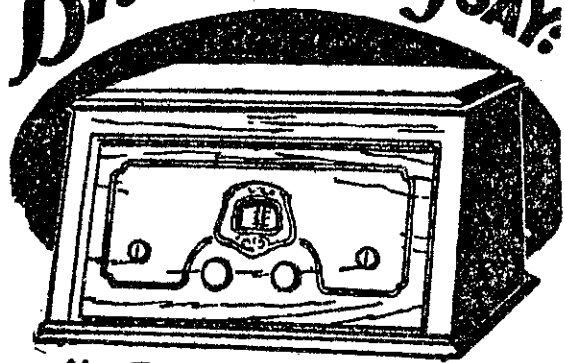
GREATEST CLARITY-
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ELLIS & COMPANY, LTD.
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Auckland

79 STATIONS on a 6-Valve BREMER-TULLY

28 - American
21 - Australian
10 - Japanese
20 - New Zealand

Bremer-Tully say:



"The best set built
— for the least
it's wise to pay"

The foregoing wonderful record tells its own story in regard to the performance of this ultra-supreme Radio Set. Read what the owner of the Set says himself:—

"Dear Sirs,

"The following is a list of 79 Stations received on a Bremer-Tully 6-Valve Set model since November 15th, 1927, when my set was first installed. I have cards, letters, etc., confirming reception of all the stations listed below. I have also a big list of Short-wave Stations, and would be pleased to send along"

(Signed) William Terrill,
Waitara, 24/9/28.

2BL Sydney	KOMO Seattle, Washington	3GN Newton, Aust.	1ZQ Auckland
5CL Adelaide	KPO San Francisco	KMTR Los Angeles, Cal.	4YA Dunedin
3DB Melbourne	CNRV Vancouver, B.C.	KMOX St. Louis, Mo.	2AQ Taihape
3LD Deal Island, Light House, Victoria	JIBK Osaka, Japan (old station)	KWKH Shreveport, La.	1YA Auckland
AQE Sir James Clarke Ross Whaling Ship	JORK Osaka, Japan (old station)	KGER Long Beach, Cal.	JOAK Tokyo, Japan
7BY Bombay, India	3AR Melbourne	KFSD San Diego, Cal.	JOEK Kiroshima, Japan
4ZB Dunedin	4QG Brisbane	KFVD Venice, Cal.	3ER Melbourne
3ZC Christchurch	2UE Sydney	KFRC San Francisco	KTAB Oakland, Cal.
3YA Christchurch	3CI Clifty Island Lighthouse, Vic.	9XF Chicago, Illinois	KNX Hollywood, Cal.
2ZM Gisborne	3UZ Melbourne	KGU Honolulu, Hawaii	KGO San Francisco
JOBK Osaka, Japan	3VP Wilsons Lighthouse, Vic.	JOCK Nagoya, Japan (old station)	KFWI San Francisco
JOJK Kumanu, Japan	5KA Adelaide	2KY Sydney	KEX Portland, Ore.
4ZL Dunedin	ARDI C. A. Larsen, whaling ship	7ZL Hobart, Tas.	KFKB Kansas City, Kansas
2ZK Wanganui	5DN Adelaide	2UE Sydney	KNRC Santa Monica, Cal.
WENR Chicago, Illinois	2ZF Palmerston N.	KZRM Manila, Philippines	KHJ Los Angeles, Cal.
WBBM Chicago, Illinois	1ZB Auckland	7CA Calcutta, India	KFWM Oakland, Cal.
KFON Long Beach, California	2YA Wellington	4ZM Dunedin	KWVG Brownsville, Texas
KFI Los Angeles, California	3BY Melbourne	3LO Melbourne	JOAK Tokyo, Japan
KFWB Hollywood, California	JOHK Sendai, Japan		2FC Sydney
KSL Salt Lake City, Utah	JOIK Sepparo, Japan		
	2HD Newcastle, Australia		

AGENTS:

Barnett's Radio Supplies, Dunedin.	Macks Radio Co., Wellington.	L. J. Rattenbury, Waitara.
G. T. Gillies, Oamaru.	D. A. Morrison & Co., Wanganui.	Anchor's Radio House, Hamilton.
Brehaut Bros., Timaru.	Davy's Electrical Supplies, Hawera.	Turnbull & Jones, Auckland.
J. I. Smail, Christchurch.		Superadio, Ltd., Auckland.

N.Z. AGENTS:

RADIO LIMITED

COMMERCE BUILDING, ANZAC AVENUE, AUCKLAND.

How the B.B.C. is Conquering Interference

THE enclosed article from "The Times," "The B.B.C. and Its Clients," is of much interest, writes Mr. J. H. Owen, of Wellington, to the "Radio Record." Due to the proximity of Great Britain to the Continent, a good deal of interference is occasioned by the number of foreign stations and their numerous wave-lengths. It is especially at night time that this trouble happens. Now eleven B.B.C. stations which formerly had their own separate wave-lengths will become relay stations with one common wave-length, which will be an exclusive one. If pandemonium has to some extent prevailed in Great Britain, how much more must it exist in Canada and the States, where there is little or no control? I see by recent news that those countries are trying to take steps whereby some 160 small stations, which at present litter the air, shall be eliminated. This will be a difficult and an unpleasant task for the Postmaster-Generals. I see by the "Radio Record" that an application is likely to be made for a license to erect a chain of stations in New Zealand shortly. It is to be hoped that the Postmaster-General will refuse all applications of this sort. Once granted, they would (after the novelty wore off) be a constant source of annoyance to the New Zealand Broadcasting Company and to every listener in the Dominion, whilst the whole existing system would be imperilled.

The Annual Radio Exhibition takes place at Olympia this month, 22nd to 29th, and I am looking forward to a treat.—J. H. Owen.

THE new plan, announced by the B.B.C., and commented upon by our wireless correspondent recently by which it is intended that listeners to the B.B.C.'s relay stations shall be relieved of the growing annoyance of interference, is a drastic measure, but one clearly needed inasmuch as it will bring relief to some four or five millions of listeners, mostly owners of crystal sets, in a number of thickly populated areas where enjoyment of the programmes has of late been much impaired. Indeed, this large body of listeners may be supposed to have expected that the B.B.C. would take up their case; and they are now going to have a remedy given them, which, though admittedly temporary pending the introduction of the regional system, should remove all hardship and cause of dissatisfaction. Whether other nations will follow the B.B.C.'s lead in this matter remains to be seen; but it is an example of the B.B.C.'s pioneering foresight, and, as it happens, it is a kind of sequel to the famous Geneva plan, towards the settlement of which the B.B.C. took the initiative. By that plan each nation in Europe was allotted so many shared and so many exclusive wave-lengths, Great Britain at present having eleven shared, and ten exclusive. Now, by the application of one of the exclusive wave lengths to the relay stations, the B.B.C. has found a way of restoring to listeners at those stations a means of hearing such as they have not been able freely to enjoy for some time. How badly they have suffered from various forms of interference due to the broadcasting of foreign programmes on shared wave lengths can be judged by the fact that in some instances the local programme has been to all intents and purposes efficient only at so short a range as half a mile, while at three miles distance interference is received. This is, of course, at night, when that otherwise beneficent layer of electricity, the Heaviside layer, exerts its potency about sixty miles up in the atmosphere. By means of that layer, which Sir Oliver Lodge called "an unexpected bonus on the part of Providence," long-distance transmission, as in trans-Atlantic telephony, and in the beam system, is achieved; but it happens to

be too good a reflector of waves by night to be compatible with comfortable reception from stations using shared wave lengths.

THE waves in fact, of Continental stations have travelled farther than is desirable. Transmission over long distances is not wanted in broadcasting, or interference with the pleasure of others ensues. The nuisance, moreover, has been growing worse, as the Continental stations have been trying too shout their neighbours down, and with their ally in the Heaviside layer, they have largely succeeded, especially as they have been increasing their powers while our relay stations have been kept at the same strength. Hence the need for an escape from pandemonium. The stations affected are not the main stations, which all have exclusive wave-lengths; in their case working has proved on the whole satisfactory throughout the country, though there have been occasions when some Continental station has wandered a little in wavelength and caused interference to a programme set out on one of our exclusive wavelengths. The sufferers are the relay stations—Dundee, Edinburgh, Leeds, Bradford, Sheffield, Hull, Liverpool, Stoke, Nottingham, Plymouth, and Swansea—all populous places where the listeners are mainly crystal users and fairly close to the station. It is to these stations that the B.B.C. has resolved to devote one of the exclusive wavelengths pending the full introduction of the regional scheme. All relay stations will therefore use the same wavelength, and interference among the relay stations themselves will be mitigated by arranging for the relay stations to have the same programme. Technically this is quite sound, and very little interference should be experienced to ranges of five miles at night, while the day range should be even greater.

THERE is one conceivable drawback to the plan, and that is the discouragement which it gives to local programmes. Even here, however, for one reason and another, the disadvantage is not so great as may seem at first. The effects of the Heaviside layer come into force only after sun-

A New Application of Wireless

Effective Intercommunication Established by Submarines

RADIO is ever being applied to new and unusual fields. It has passed, in its development, the stages of experiment, of curiosity, and of general application. It has now reached the stage of scientific application, the general characteristic of our age. Its great value, in this manner applied, has been demonstrated repeatedly. Aeroplanes and submarines, business men and the explorers, universities and theatres, laboratories and households, Governments and individuals are daily testifying to the great possibilities of applied wireless.

The submarine is now to be ranked among those fields where wireless is to play an important role.

Underground Antenna.

IT has long been known that radio waves set up in the ether by elevated aerials may, under favourable conditions, be detected at considerable depths below the earth's surface. In fact, many devices for underground reception of wireless transmissions have from time to time been subjected to tests. It was found that although signals could be received on underground antenna, they became weaker as the

distance from the surface of the earth increased.

Great claims were made from these tests, it being found that signals picked up from the ground were relatively free from static. Many and various static eliminators flooded the market, but it was found that signal strength suffered more than was gained from the elimination of static.

HOWEVER, what appears to be a practical system has been evolved by an American radio scientist, Dr. Rogers, whose system of under-water transmission and reception has within the last year been applied to all the under-water craft of the United States Navy.

Radio Waves and Water.

FOR some time it has been known that submarines may transmit and receive messages on longwave when the transmitter is situated only a few hundred yards from the receiver. Longwave was necessary because of the absorbing power of water when radio waves were generated under these conditions. Likewise when at a considerable depth signals faded out entirely.

The Rogers system applied to submarines promises to do away with these defects.

The Rogers System.

RADIO energy from the transmitter situated in the heart of the submarine is fed into two highly-insulated cables, which extend over the top of the vessel to both ends of the submarine.

Such an arrangement provides what is really a loop aerial, the insulated cable representing one side of the loop and the metallic body of the submarine constituting the other. The loop circuit, therefore, will oscillate in response to electro-magnetic waves set up by the transmitter, or in virtue of similar waves transmitted to it from external sources.

A PARTICULAR feature of the system of under-sea radio is that it can be employed successfully on medium short-waves, e.g., 500 metres.

Actual tests have proved that submarines thus equipped can pick up radio signals from stations thousands of miles away. The European stations have been received by submarines in American waters.

Up to a hundred miles and in medium depths a submarine can maintain constant and reliable communication with a similar vessel.

The Interpretation.

THE possible result from this invention, or evolution as it really is, are indeed far-reaching. As instruments of war they are destined to be invaluable, yet they would add another terror to submarine warfare; but the question may be put, what part will submarines play in a future conflict when huge airplanes can pass rapidly over the heads of both ship and submarine?

But, as an instrument of war it should not be considered—war, surely, is to be outlawed by the modern peace-loving nations. The invention should be considered as another means of saving life, so that a terrible end, trapped in a sunken submarine, should be a by-gone.

Wireless is destined to great things, and certainly one of its greatest services is the saving of human life.

down, and it may be possible, therefore, for a local station, at any rate in summer, to retain part of its local features. It is a question, however, in reality not so much of local programmes against a common programme, as of good hearing against bad, and over that issue there can be no doubt which way the majority of listeners would vote. When at length it is established, the long-expected regional system will bring with it a greater choice of programmes, and there is good reason to suppose that by then there will be a far more general use of valve sets than there is now. For one thing, there is every prospect of their becoming much cheaper very soon, while they also bid fair to become much more efficient. In the last resort the enjoyment of wireless rests on the excellence with which sound is received; the better the sets, the better the finer points of a good musical programme can be appreciated. That itself is likely to react on the preference of listeners, who will be disposed more and more to welcome performances of a standard to which purely local talent can hardly be expected to attain. While no one would wish wantonly to damp down local patriotism there is a tendency for it to shrink of its own accord in face of undeniably superior merit; and there are grounds already for believing that, strong as it still is in certain sections and in some centres perhaps stronger than in others, the tide of fashion is on the whole setting away from it. With management, in those quarters where to deny it scope would be unfair, there may still be room for a certain amount of it in the future; but even the B.B.C., resourceful as it is, is not omnipotent. It intends for the time being to get millions of its humbler clients out of a difficulty which leaves them for the present with no other alternative to a single programme than chaos; and

when two years hence, as it is hoped, the change-over to the regional system will have been everywhere accomplished, there is little question that large numbers of listeners on the cheaper sets will have facilities given

to them which are now out of their reach.

TO minimise interference, Germany is making the experiment of putting

relay stations on the same wavelength as their main station. The only problem, apparently, is to keep each carrier-wave level with the others, but this is believed to have been solved.

Special Notice

As we are moving in a few days to more commodious premises in Mercer Buildings, corner Mercer Street and Victoria Street, we have decided to reduce our Stock of the well-known Sterling Loudspeakers at exceptionally low prices—

Sterling Dinkie	£1 15 0
Sterling Baby (Black)	2 2 0
Sterling Baby (Brown)	2 2 0
Sterling Baby (Black and Gold)	2 12 6
Sterling Popular	2 0 0
Sterling R33	5 17 6
Sterling Mellovox	2 2 0
Sterling Primax	5 5 0

This is a chance of a Lifetime to get a High-grade Speaker at a very Low Price, and the offer is open for a few days only.

NOTE.—YOU CAN GET A HIGH-CLASS WIRELESS SET AT A CHEAP PRICE, TOO—

THE LAWRENCE & HANSON ELECTRICAL CO., LTD.

33-35 LOWER CUBA STREET.

The New Zealand Radio Record

P.O. BOX, 1032. WELLINGTON.

Published Weekly. Subscription Post Free in advance, 10s. per annum; booked 12s. 6d.

WELLINGTON, FRIDAY, OCTOBER 19, 1928.

THE RETURN FLIGHT OF THE SOUTHERN CROSS.

AFTER protracted delays, waiting for conditions favourable enough to warrant the undertaking of such a venture, the return flight of the Southern Cross to Australia from New Zealand was made on Saturday and Sunday last, the actual time of the flight from take-off to land being 22 hours 52 minutes. This is necessarily very much slower than the phenomenally quick original flight to New Zealand, when a following wind of some 30 miles an hour contributed very materially to a spectacular performance. On this occasion, conditions were the exact opposite, and a head wind was encountered for the whole distance. The effect was to materially slow down the rate of progress, particularly in the early stages, when the craft was heavily laden, to but little better than 50 knots an hour. On the last stages of the journey with better conditions and a lighter load this rate was improved.

FROM the radio point of view this flight was vastly more successful than the earlier crossing. Then because of the bad conditions and lightning storms encountered, the radio apparatus was out of action for a considerable part of the journey. On this occasion, although conditions were far from ideal and heavy showers were encountered, the radio equipment functioned satisfactorily throughout, and as a consequence almost throughout hourly reports were available of the position, which enabled listeners to actually plot progress on charts and atlases. The return was thus a triumph for the dependability of radio. Through radio all could share in the flight, and as public interest was intense, the value of radio has been strongly impressed upon the public mind.

FIVE CONTINENTS IN ONE DAY.

ANOTHER item that we record to-day is even more sensational in its revelation of the present standard of radio than the success attendant on the transmission of the flight of the Southern Cross. This is the news recording the attainment of Mr. F. W. Sellens, the well-known short-wave enthusiast, of in one day hearing stations from the five continents of the world—Europe, Asia, America, Africa, and Australia. Africa is the continent which has previously presented the greatest difficulties to listeners as reception from that point has been difficult. The feat of receiving African transmissions on Morse has been performed. Now, however, loudspeaker reception of broadcast music is recorded. This emanated from a new station erected at Nairobi in British East Africa. The thought that, through radio, one can sit in one's home in Wellington and listen to the events of the whole world is indeed thrilling. No wonder that the growing facilities in the short-wave area are attracting an increasing number of enthusiasts. Short-wave reception presents its own problems which are only surmounted at present by considerable enthusiasm and skill, but the rate of progress being made is so remarkable that it is impossible to say that any predicted performance is impossible.

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S-O-S

TRAVEL IN COMFORT BY
CAR

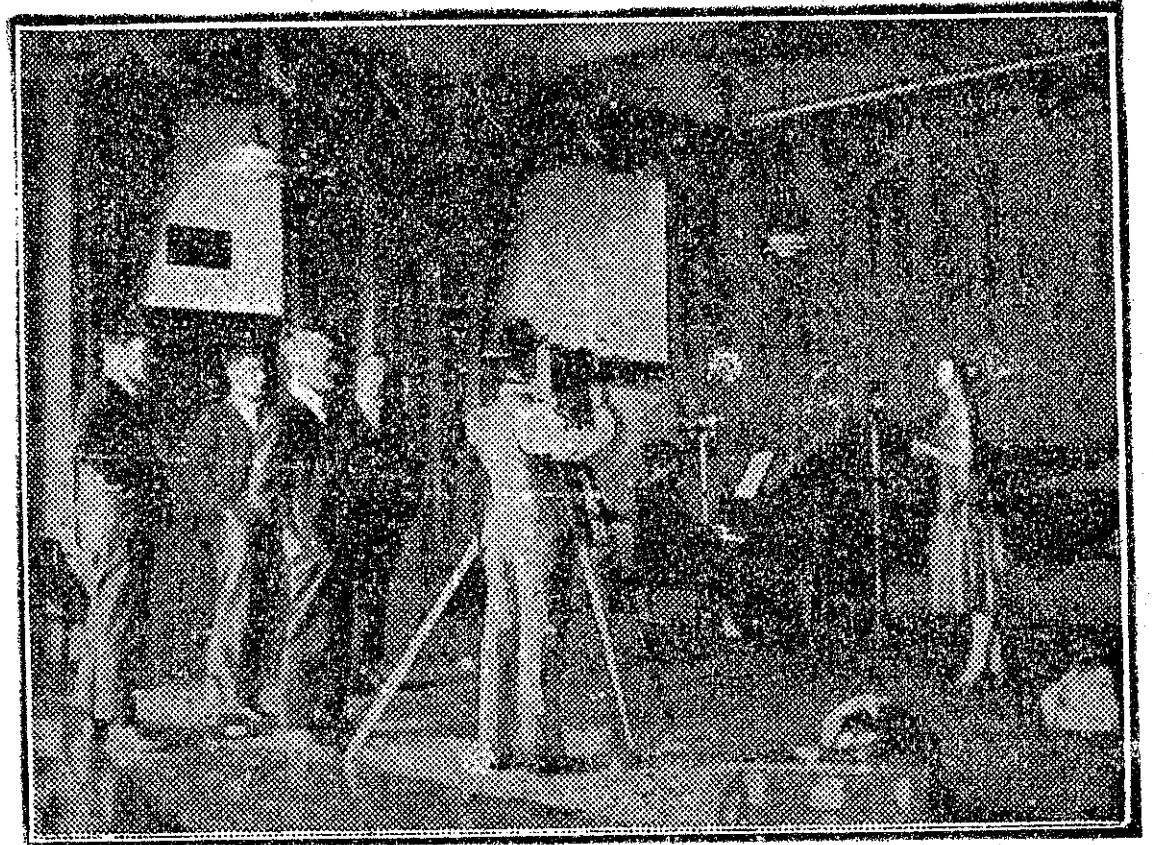
WELLINGTON — PALMERSTON
NEW PLYMOUTH.

A DX Award

MR. D. W. TAPP, of Rotorua, has been awarded a ukulele by KFI, Los Angeles, as a prize for long distance reception of KFI's midnight frolic.

In the "Movies" Experience at 3YA

INSTEAD of being a broadcasting station, 3YA studio might easily have been mistaken for a corner in Hollywood one day last week. A moving picture man was there busily arranging scenes and taking shots in the most approved style. The film is to form part of a reel which the Government Publicity Department has been making at 3YA. Then will be seen a lady at home tuning in her set and listening in to the artist whose face will appear in the loudspeaker. The photograph reproduced above shows some of the staff of 3YA—who know more about producing radio programmes than about arranging and making moving pictures—keenly inter-



Filming a scene in 3YA studio.

making of Christchurch. In this picture, in which pretty glimpses of the Avon will be featured, the graceful towers of 3YA will form an impressive sight in their pretty arboreal setting. The outside view of the station will then fade away, and in its place will appear the glass doors of "3YA studio." Then there will be another "fade" (a term common to both radio and moving pictures!), and the theatre audience will see an artist actually singing in the "shooting" of one of the station's "star" artists. From left to right those in the photograph are: Mr. C. S. Booth (announcer), Mr. J. M. Bingham (chief engineer), Mr. L. Slade (station manager), Mr. C. S. Bell (programme organiser), Mr. Pierre (Government photographer), Miss A. Warren (studio pianiste), at the grand piano in the background, and Mrs. Claris Shaw (one of 3YA's finest sopranos).

Election Results

Arrangements to Broadcast

Every receiving set in the Dominion will be in use on the evening of the General Election, on November 14. Complete arrangements are being made at each of the four stations for broadcasting all results.

"Keyed" List in "Radio Record"

In connection with the above, the "Radio Record" proposes to publish in its issue before the poll a complete list of all electorates and candidates with space provided for filling in the figures.

In addition to this, for the purpose of helping listeners quickly to locate the electorates, each electorate will be given a number.

Schubert Centenary Radio Celebration Next Month

November will bring with it the centenary of the death of one of the greatest melodists the world has ever known. Franz Schubert, who, in his brief life of 31 years, wrote some 600 songs.

The occasion will be commemorated with a Schubert evening at the different New Zealand stations on dates which will be announced later.

The genius of Schubert has a universal appeal, and the "Schubert Evening" can be looked forward to by all.

3YA Uncles

It has been arranged that in future "Chuckle" is to take the children's session on Saturday evenings instead of on Thursdays.

The position of Uncle on Thursday evenings is to be filled temporarily by Mr. Harold Hindle, a brother of the well-known baritone, Mr. Clive Hindle. Mr. Harold Hindle also sings and plays well. He takes a prominent part in Y.M.C.A. activities and in the doings of the Optimists' Club.

Gramophone Records in Evening Session

Lengthy Discussion at General Meeting of Amateur Radio Society.

A LARGE number of radio listeners assembled at the hall of the Cambridge Terrace Congregational Church on the occasion of the general meeting of the Wellington Amateur Radio Society, on Tuesday, October 9. That the meeting was popular can be gauged from the fact that although the hall is slightly larger than that at the Dominion Farmers' Institute, it was packed, so that many were unable to find seating accommodation.

IN addressing the meeting the president, Mr. Byron Brown, observed that there was an absence of ladies and extended an invitation to all lady enthusiasts.

The Racing Ban.

The secretary, Mr. W. H. Taylor, having read the minutes, discussed a letter received from the racing secretary at the last meeting. This letter had intimated that the conference would not meet till 1929, and had advised the society to lodge their objection to the racing ban then. "It appears," said Mr. Taylor, "that a new committee is to be elected during the Wellington spring meeting."

It was decided to write this new committee on its taking office, asking it to reconsider the decision to place the ban on the broadcasting of races. A sportsmanlike attitude was shown by members of the committee. Some of them never approached race meetings and had no interest in them, "but," as Mr. Brown answered an interjection, "we must think not of ourselves, but those who do," and added his protest against the ban.

Whilst waiting for Mr. C. C. Fear, the lecturer of the evening, the meeting was thrown open for the expression of grievances or the "throwing of bouquets."

Gramophone Records.

THE first grievance was expressed against the inclusion of so many records in the evening session, it being stated that these could be purchased and played any time. The records played, it was contended, were not the best.

This opened a long, interesting, if not lively discussion. The feeling, however, was against the speaker—one speaker adding that, as the records were of a superior quality, they materially improved the programmes, being preferable to hackneyed items.

THE difficulty to please all was made plain by Mr. Ball, editor-announcer of the Broadcasting Company, who retold a recent incident that occurred at 2YA. "The announcer and I," he remarked, "were discussing some of the records being played during the afternoon session and had just decided that a certain record, which we thought not of sufficiently high standard to put over the air, would not be replayed, when 'ting-a-ling' went the 'phone. 'Could you replay that record please?'"

"Yes," added the president, "I agree that some of this music is objectionable, it is like a rip-saw going through

a kerosene tin——." (Laughter and applause.)

Still the discussion continued—the Broadcasting Company was accused of not adequately remunerating the artists it engaged, to which it was rejoined that with the money at its disposal, the company did excellent work, and it would be impossible to pay artists say £2 a night for six nights a week at all four stations.

THE coup de grace was given by a visitor who, stating that he came of a race who always take good care to get value for their money, was fully satisfied with his 30s. worth. The appearance of artists not fully ripe is a good thing—it gives them opportunity to widen their talent. The records, which the speaker contended were excellent, gave the world's best. "Could we expect Moiseiwitch for 30s. a year?—No! Such artists can be heard only by the medium of gramophone records." The speech was terminated with applause.

"Judging by your face you are not a Jew," added Mr. Brown. "You must be——"

"I am a Jew and proud of it," replied the speaker.

The argument was dropped.

MR. BALL, who was before the microphone when the airmen landed at Blenheim, was congratulated by the meeting for his very able and interesting description of the great event. Imagination was necessary for such an occasion, and Mr. Ball proved he was more than equal to meet the requirements.

The Browning-Drake.

MR. C. C. FEAR, of Messrs. A. J. Fear and Co., a well-known authority on the Browning-Drake circuit, was introduced and presented an interesting and illuminating address on that circuit. It was stated that for a four-valve set it was unequalled except by the screened grid in the first stage.

Commencing with a theoretical circuit, it was explained that the characteristic of the circuit lay in the slotted primary of the regenerator. This added distance and selectivity to the set. Browning-Drake coils were presented for inspection.

Extracts from this lecture appear elsewhere in this issue.

On conclusion, Mr. Fear was accorded a very hearty vote of thanks, and in replying told the meeting it was his first public address. Mr. Fear must be complimented on the very able manner in which he tackled his task, and this statement came as a great surprise.

A MOTION to the effect that the society approved of good gramophone music (barring trash) was put before the meeting and adopted. The mover stated he had had a long experience with 2LO (London), and he was confident it could not show the progress the N.Z.R.B.C. had made.

The meeting concluded with an appeal for members. There were two hundred to three hundred members, but more were desired. The subscription for one year was 5s.

The Flight of the Southern Cross.

Stirring Tribute Broadcast by 2YA

The following tribute was broadcast by Station 2YA, Wellington, relay from Blenheim, on the occasion of the arrival of the Southern Cross.

Four stalwart souls, encabined in their 'plane, essayed a task 'twould make the bravest quail;
Through Air's uncharted space with sure, unerring aim, scorning alike the Tempest and the Dark,
Smith, Ulm, and Litchfield with McWilliam flew, brave Pilots of the Unknown Way,
On man-made wings above the Tasman deep, and blazed beneath the skies an Applan Trail.

O vasty deep, O great illimitable void conquered at last by man's indomitable will!
To-day we greet the conquerers with acclaim, pay homage to the men who soared that mighty span,
Laughed at the Thunder, spurned the Lightning's flash, endured the dread loneliness of impenetrable night,
And with a modest courage, daring even Death, landed triumphant the whole world to thrill.

This flight historic, crowned with rich success, flings wide the door of aerial enterprise:
Opens to far-flung lands, wide-sundered by the seas, a dawn of radiant hope;
Makes sport of Time, cuts Distance to the quick, and with assurance by achievement gained
Gives to mankind a boon of priceless worth—the sure, unfettered transport of the skies.

—J.B.

And a Little Prayer for Their Safe Return

THE enclosed, states a letter to 2YA, are the thoughts of a little boy of six, put together by a boy of 40 into some kind of rhyme. We dedicate them to "Aunt Gwen," who does so much to make the children's hour so enjoyable. We all love your laugh, and your voice, which comes over the air with wonderful sweetness. Grown-ups love the children's hour, I can assure you, just as much as the kiddies.—With all good wishes.

The Children's Hour was nearly closing,
And many a tired wee tot was dozing,
But they knelt in their cots, with their heads bowed,—when,
"You'll pray for the airmen," said Aunt Gwen.

And each one muttered a tender thought:
"God, bring the airmen safe to port,
Guard and protect those strong, brave men,
And keep them safe,—and bless Aunt Gwen."

And through the clouds on that early morn
The airmen came safely through the storm;
And we cheered, and cheered, and cheered again.
"Thank God they are safe," said dear Aunt Gwen.

And on the day that they fly back,
Smithy and Charlie, Litch and Mac,
We'll cheer them to the echo; then,
We'll pray for their safe return, Aunt Gwen.

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Auckland Notes

(By Listener.)

AT the time of writing news has come to hand that the return flight is probable within a few hours, so the writer, like hundreds of others, will set the alarm and be alert to hear the interesting preliminary remarks which will precede another epic occasion for New Zealand broadcasting. Despite the many unavoidable delays, the interest in the recrossing is just as keen as was the enthusiasm over the initial venture.

ON Wednesday night a local resident desired to get into urgent communication with Warkworth, but found that the heavy gale of the preceding twenty-four hours had brought down the wires, so that it was impossible to send a telegram. Radio, however, came to his rescue, and through the courtesy of 1YA the urgent message was put on the air, and doubtless reached the person for whom it was intended more quickly than it would have done through the usual channel of communication.

IN connection with the untoward incident at Ellerslie racecourse on Saturday there were several ugly rumours which quickly gained credence and spread throughout the city and suburbs. Even up till midnight these rumours persisted. Had broadcasting

been permitted from the course it is quite unlikely that such rumours would have originated, and if they had, the wonderfully quick method of disseminating news over the air would soon have dispelled them. Saturday's unfortunate occurrence only emphasises the service which a broadcasting station could have rendered to the racing club. The incidents would not have been magnified as they were by rumour, the whole province could have received from the committee of the A.R.C. an official announcement regarding the position, the causes of it, and the decision of the stewards, and the information of the postponement of some of the races would have been province-wide in a few minutes.

LABOURING under great disadvantage, the officials of 1YA yet contrived to give results, and some particulars of the Ellerslie Spring meeting, and they deserve the thanks of the listening public for the service.

THE special choral items rendered by St. Matthew's choir on Sunday evening last, were a feature among items of a good week's broadcasting. Choir work has a general appeal, and the renderings by St. Matthew's choristers were thoroughly enjoyable.

AGAIN 1YA is to the fore in exploring and developing new fields of entertainment. On Wednesday evening there was produced in the studio Mr. John Drinkwater's well-known play "Oliver Cromwell." To listen to and enjoy this presentation was to appreciate the big amount of work that such a production involves. It was evident that those impersonating the various characters had undergone careful training and diligent rehearsal. The play itself, though on the heavy side—might almost say the "Ironside"—must have proved an attraction, even to those who are devoted to entertainment of a frothy type. There was nothing of humour in it, but it gave to the listening public a vivid picture of conditions, and of historic personages in the stirring days of the Civil War. All of the characters were well sustained though some might have been better placed before the microphone. It is to be hoped that Mr. Montague and his Comedy Players, will give us more of high-class drama over the air. Once a month would be none too often for the presentation of a play which would occupy the whole of the evening programme.

Sporting

SATURDAY, OCTOBER 20:

Boxing, Pocock v. Broadfoot—3YA.

TUESDAY, OCTOBER 23:

Boxing—Tommy Fairhall v. Charlie Purdie—2YA.

MONDAY, OCTOBER 29:

Boxing—Territorial championship—2YA.

Territorial Championship

THE following details of the tournament may be of interest:—

The Territorial and Cadet Boxing Tournament is an annual competition in which all of the units in Wellington and the Hutt Valley take part. Each

company, or battery, selects a team of six men to represent it. This year no fewer than 20 teams are taking part. Men who have previously fought under the auspices of the Boxing Association are not permitted to enter the company team, but they also take part in the tournament. Each man who wins scores two points for his company and each loser one point. The competition thus stimulates inter-company rivalry besides developing boxing talent. Three nights of preliminary bouts will be fought in the Community Club on October 24, 25, and 26, and the finale will be fought in the Town Hall on Monday, October 29. The public is admitted to all bouts.

Cups have been presented for the winners and runners up of Territorial entries and Cadet entries, and the Whatman Challenge Bowl is awarded to the company whether Territorial or Cadet that gains the most points in the competition. This cup is at present held by the Wellington College Cadets.

The Manawatu Mounted Rifles are at present holders of the Territorial Championship Cup.

It is hoped that a team from the Royal Navy will also be able to take part in the tournament.

H.M.A.S. Australia

Treat for Children

THE opportunity of hearing splendid band music was given all listeners to 2YA's children's service on Thursday evening last by the attendance of H.M.A.S. Australia's splendid band of strings and brass, under Warrant-Bandmaster Ventry. This band, numbering some sixteen men, played a very extensive repertoire for over half an hour, and greatly delighted all who were listening. It may be mentioned that Warrant-Bandmaster Ventry is the only commissioned bandmaster in Australian waters.

At intervals during the performance Miss Gwen told listeners what a treat they were being given by the service of this splendid band, and at the conclusion heartily thanked Warrant-Bandmaster Ventry and the members of the band for their kind attendance. She also expressed the hope that on any future occasion when the H.M.A.S. Australia was in New Zealand waters, the privilege might be repeated of hearing the band over the air.

Up-to-the-Minute

AN item of up-to-the-minute news was broadcast by 2YA on Saturday afternoon through the courtesy of Mr. F. W. Sellens. Just before 3.30 (our time) Mr. Sellens was listening to the American station 2XAD closing down. One of their final announcements was that the Zeppelin then proceeding from Europe to America was in the vicinity of the Azores and was expected to reach New York on Sunday afternoon.

News of this flight, together with that of the Southern Cross, was of definite interest to listeners.

Television in Open Air

MR. BAIRD, inventor of television, is now steadily progressing along the more difficult paths, and his last step has been infinitely important. He has succeeded in doing away with the large banks of lamps, so far required to illuminate the object being televised. During a demonstration before Professor J. A. Fleming an image was transmitted in ordinary daylight, and the sun was not even shining at the time.

The Americans have developed television along similar lines, and recently conducted a successful television experiment by which the movements of a tennis player in flannels were made clearly visible to "watchers-in" several floors beneath.

These developments are considered epoch-making, because they are among the first times sunlight has been used instead of artificial illumination. In the case of the tennis player a camera-like televisor on the roof was connected with the screen of the receiving apparatus by wire, but it is claimed it would be just as successful if wireless were used. Dr. Herbert Ives and Dr. Frank Gray conducted the experiment.

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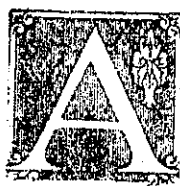
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Southern Cross Returns to Australia

Radio Keeps Listeners in Touch throughout 23-Hour Trip

THE return flight of the Southern Cross to Australia has been successfully accomplished and through broadcasting the people of New Zealand and Australia were enabled to keep closely in touch from start to finish. Intense interest was taken in the flight and all associated with it. The public was hungry for news and thanks to the assistance rendered by the Post and Telegraph Department a service so complete and satisfactory was given that it can be said the public was in touch throughout. Taking off from Blenheim at 4.54 a.m., the plane landed at Richmond aerodrome at 2.16, Australian time, or 4.16 New Zealand summer time, or an actual flying time of 22 hours 52 minutes. Heavy winds were encountered from the start of the flight but as the Australian coast was reached conditions improved, which, together with the lightening of the load of petrol through consumption, permitted higher speeds to be made.



ANNOUNCEMENT that the Southern Cross would leave on Saturday morning at dawn, was made from all stations on Friday evening, and full-time service promised listeners. Incidentally, the announcement ended a long period of tension for all stations. Since September 30, the date originally fixed for the departure of the aeroplane from Blenheim, the broadcasters have been on the qui vive. There was a prospect that any morning the hop-off would take place, without warning, just as happened in the case of the departure from Australia, so the Broadcasting Company made arrangements which would ensure all stations being ready for any emergency. For nearly a fortnight the company's operators were practically "standing to" all night. A telephonic system was arranged by which the company's representatives at Blenheim could advise all stations. At 3YA two of the staff slept on the premises. In all instances, a telephone bell was alongside each operator.

Farewell Messages.

TO witness the departure there was present quite a big crowd at the Blenheim aerodrome, the countryside having been advised by the flashing of the searchlight early in the evening, and again at 11 p.m., that the departure was a certainty, after many delays. Accordingly, soon after midnight, motor-cars from miles around began concentrating on the ground with a freight of interested passengers, so that by 4.30 there were on the ground over 600 motor-cars and several thousand people.

The duties of announcer for the occasion were fulfilled very ably by Mr. C. A. MacDonald, secretary of the Marlborough Aero Club, upon whose shoulders the weight of organisation in connection with the whole event mainly fell. On taking up the microphone, Mr. MacDonald described the scene, after which the departing aviators were called forward to bid farewell to listeners.

"I am generally known as 'Smithy' when I'm talking to you," laughed the leader when the announcer had introduced him as Squadron-Leader Kingsford Smith. "We want to thank you very sincerely for your hospitality, and to let it be known how deeply we appreciate the kindness and courtesy of our New Zealand cousins. We hope to be in Sydney by 11 o'clock to-night. Unfortunately we can't make it as fast this time as we did coming over, be-

cause of the head winds we have to meet. Cheerio."

"Good morning, New Zealand," said Lieutenant Ulm, stepping up to the microphone. "Good-morning, Australia, too, if you can hear me. I want to add my thanks to 'Smithy's' for the kindness of everybody, from Mr. Coates downwards. Unfortunately we were not able to visit all the centres of New Zealand, but we know that you are all interested in our work. I want to tell you that we honestly tried to answer everyone of the telegrams and letters of congratulations we have received, and if one or two have been missed, we're sorry. Thanks very, very much, and good cheer."

Mr. Litchfield also thanked the many people who had sent him congratulatory messages. "Good-bye and thank you for the good time you have given us in New Zealand," he said. "Cheerio everybody, we will be in Sydney to-night."

"I am awfully sorry, the other chaps have spoken so long and have kept you out of bed," said the cheery "Mac." "Thanks very much for the wonderful time. Good luck to all you people in New Zealand and in Australia too if you can hear me. Hello, Richmond Aerodrome, get plenty of hot water ready for us when we arrive, and 'Stiffy,' get some of those cannon balls polished up. We will need them too. Good-bye, though, I won't say that, for I will be coming back soon. Au revoir, everybody."

The Start of the Flight.

THEY are getting into the 'plane now," said the announcer at Blenheim. "The engines are being tuned up and no doubt the roar is drowning my voice completely. All along the mile run-way people are lined up. Despite the early morning there are 500 to 600 motor-cars on the ground. The Southern Cross is now taxiing out of its hangar," continued the announcer. "The engines are working beautifully, and you will hear them clearly. The exhausts are spitting fireworks. The interior of the Southern Cross is brightly lighted and looks very comfortable in this very dull and cloudy morning. A good northerly breeze is blowing, and the morning would not seem to be an auspicious one for a flight to Australia."

All this time one could hear the whirring of the engines, the aeroplane being about 75 yards from the announcer, who said, "When you hear them accelerate, the 'plane will be off."

However, a lot of people then began to straggle across the run-way, and a motor-car, followed soon by two others, went down to clear the course. Then the whirr of the engines increased to a roar.

"She's off," said the narrator, "and she's already well down the run-way. The two Bristol fighters are off, too, and are already in the air. The Southern Cross has not left the ground yet, now she's in the air—at six minutes to five—after covering about 600 yards

of the course. She is mounting very slowly, now she's 100 feet up, and is beginning to circle the aerodrome. She's 150 feet up, and is heading straight for the hangar.

A moment later the roar of the engines proclaimed that the 'plane was directly above the microphone.

"She's heading E.N.E. in the direction of Cloudy Bay," continued the announcer. "Now the Southern Cross and the two Bristol fighters are over Blenheim, flying steadily. They are

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PHILIPS

"MINIWATTS"

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Advt. of Philip Lamps (N.Z.) Ltd. (Radio Dept.), Hope Gibbons Building, Courtenay Place, Wellington

now making right for the straits, the two Bristols following the Southern Cross, one on each flank. They are turning slightly more to the north. Now they are out of sight behind tall poplar trees. They are going on a long journey, those boys, and God speed them."

The aeroplane was out of sight of Blenheim aerodrome at 5 o'clock. Thirteen minutes later wireless communication was established with New Zealand stations, her exact position being given as 40.44, south, and 174.09 east, or about 15 miles north of Stephen Island. Her speed was 49 knots. At 7.30 she reported all well. The Maheno, which left Wellington at noon yesterday, had then been passed.

At 8.30 a.m. the 'plane wirelessly "All well"; it was then doing 50 knots and was flying at an altitude of 500 feet.

The Trip Across.

WE do not think it necessary to follow in full details the course of the flight. Under the advice of Dr. Kidson, Government Meteorological Service, a course was set to the northward of the direct route, and as a consequence early announcements of the position of the 'plane enabled the position to be plotted as being at that time 90 miles north of the direct Sydney-Wellington steamer route. A distinct service to listeners was rendered in this connection by Mr. Ivan

M. Levy, of the staff of "The Dominion" newspaper and a keen radio enthusiast. Having armed himself with a first-class Admiralty chart he was able, on the positions being given, to plot the position and estimate the distance covered and to be covered. This was a very happy thought, and of distinct value to listeners in enabling them to assess the progress being made.

THROUGHOUT the afternoon news of the flight was a little bare, but the announcements in the children's hour of the position at 6 o'clock, indicating an increase in the rate of speed (presumably because of better weather conditions) were heartening.

In the early stages of the flight, when "bucking" the bad head winds, the advice had been given to fly low to reduce resistance, but at 8 p.m. the news came that the Southern Cross had climbed to 6000 feet. At this time she was computed to be 292 miles from Sydney, and the expectation was formed that arrival would be effected about 12.30—in fact messages to that effect were sent from the 'plane to Mrs. Kingsford Smith (the captain's mother) and Mrs. Ulm, but in point of actual fact it was 2.16 before landing was made.

Nearing the Landing.

AS from about midnight 2YA turned more and more to 2BL and 2ME for news. On first picking up 2ME static was bad and reception poor, but after a time adjustments and conditions improved reception, so that a very excellent relay, indeed, was given. The announcer at 2ME was in good fettle, and made the most of the crowd, the playing of the motor-car headlights, and the vagaries of the flood-lighting system.

Excitement became keen when it was announced that the 'plane wirelessly that she had picked up lights which they took to be Newcastle. Shortly afterwards messages from Newcastle reported the sighting and hearing of the 'plane, and thence onward there was a rapid medley of messages from various points on the 70-mile stretch between Sydney and Newcastle as to the passage of the 'plane.

As was perhaps but to be expected the actual landing—the wheels touched the ground at 4.16 New Zealand summer time, or 2.16 Australian time—proved too much for the enthusiasm of the crowd, and the aviators were mobbed. With some difficulty, Captain Kingsford-Smith was taken to the microphone, and spoke a few words, expressing his pleasure at the safe return, but the rest of the crew escaped the microphone.

And so ended the 23-hour flight and the 23-hour spell on duty of the New

Zealand stations. The service, it can safely be said, was excellent, and listeners were given all that was possible in the matter of news and entertainment. Thanks are due to Mr. S. R. McCarthy, of Mack's Radio Co., for his services in picking up 2ME and other stations during the day.

A Sidelight.

ONE point that was mentioned by the 2YA announcer at midnight might well be put on permanent record here. From the commencement of the session, at a little after 4 a.m., till the time of speaking, then midnight, the two telephones of the station had not ceased ringing with various inquiries and requests from the public.

A great proportion of these requests, we learned subsequently, were from those not possessed of listening sets, who desired the latest news of the flyers. Others were from listeners who wished a particular gramophone item played; others were desirous of knowing "what was that record played about 4.33 this morning?" While all these requests were answered courteously—and in the case of gramophone requests, advised that a little list was being kept, and as many complied with as possible—it is obvious that the incessant telephoning imposed an extra burden upon the staff, sometimes at awkward moments, such as when relaying was in progress. Since the telephone is essential to the service, the only remedy is to ask the public to be as considerate as possible—and for those who have not got sets, to get them as soon as possible!

Some of the requests created a little humour. For instance, shortly before 11 o'clock, one of the announcers was startled to hear a firm, feminine voice demand over the 'phone, "Have you 'Wings'?" "No, madam," he instantly replied, "I must confess I have not as yet, but I hope to some day."

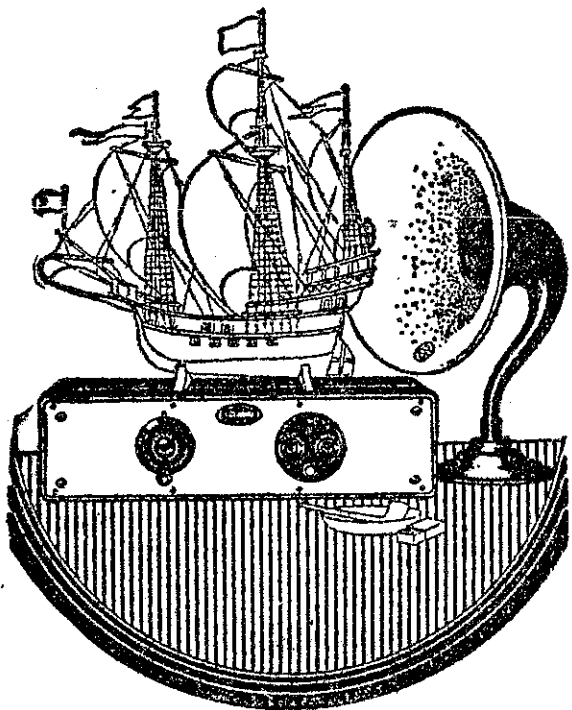
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A Bald-Headed Radio Man

IN reporting recently that the 2YA operators who were on duty during the long session attending the trans-Tasman flight were badly sunburnt, we finished up by asking: By the way, has anyone ever seen a bald-headed radio operator? To this comes a reply from the chief engineer of the Queensland Radio Service, Mr. C. W. Stevens. "Yes," he writes. "Bill Holloway, officer-in-charge of VII (Thursday Island), Northern Queensland, is as near to it as most people ever get," and adds: "P.S.—By the way, I always find your journal very interesting."

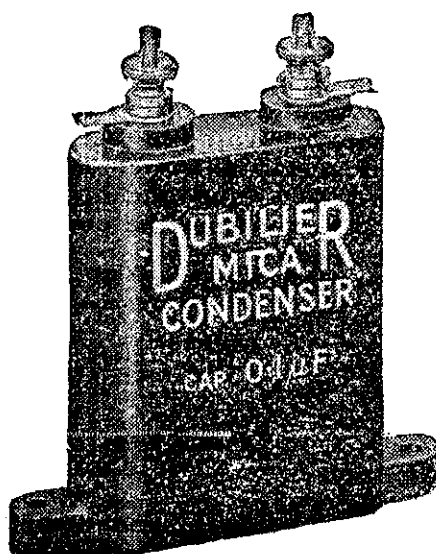
Thank you for the news and comments.

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IF PRICE interests you—we can place the famous ATWATER KENT RECEIVER and Radio Speaker in your home at a cost that will bear any comparisons. And the low price includes all the ATWATER KENT features—tone, simplicity, reliability and the rest—that everybody wants. Come in and listen.

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Wellington Winter Show

THE fancies of the public, voiced through the trend of inquiries to radio dealers during the Wellington Winter Show are interesting. Crystal sets, complete with license, were offered for as little as 41s., but, there was little business in this line. All attention was directed towards the electric sets, and, it is reported, several sales were the result.

A HUGE cone loudspeaker, some six feet in diameter, and designed after a popular speaker, created some interest at the Wellington Winter Show. This "baby" was handling great volume without the slightest distortion and consequently attracted a large crowd. Many wondered and speculated as to the method by which it was worked. It was quite simple. Two small cone speakers were so placed as to give the utmost amplification possible.

MANY people were, for the first time, permitted to hear the dynamic cone speaker in action during the show weeks. One exhibitor had one assembled in a handsome cabinet and visitors were enabled to hear it reproduce from 2YA. There is no doubt such a speaker represents the acme of perfection; for volume, tone and quality these speakers are without equal, but their cost puts them beyond the purse of the average listener.

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Notes and Comments

By "Switch"

DURING the recent broadcast by 2YA, Wellington, in connection with the return of the All Black footballers, one enterprising city radio dealer put a high-grade loudspeaker outside his business establishment and a crowd quickly assembled to listen to the broadcast. The speaker's voice could be heard clearly 60 yards away, above the traffic din. Several people stood listening on the opposite side of the street.

THE recent general improvement in the transmission from the studio of 2YA, Wellington, was the subject of appreciative comment among the 60 people who attended last week's meeting of the Wellington Radio Society. A Mr. Reeve stated to the meeting that the Broadcasting Company of New Zealand had achieved wonders during the brief period of its existence. He said that even 2LO, London, had not done so well during the same period of its existence, and he stated he spoke from actual personal experience of 2LO.

THERE is no doubt that a substantial majority of Wellington listeners relish the very excellent gramophone selections now heard more frequently from 2YA, Wellington. The almost unanimous vote of 60 listeners at the recent meeting of the Wellington Radio Society, thanking the Broadcasting Company for the well-selected gramophone items from 2YA, must be accepted as a fair index of public opinion on the subject. One fan remarked "I have a high-class gramophone, but I could never afford to run such an extensive repertoire of records as that of 2YA."

EVEN the important up-country race-meetings in Australia are broadcast. Take, for instance, the Kyneton meeting on October 16; Mr. Eric Welch, described the racing for 3LO, Melbourne.

THE great Caulfield Cup race run at Melbourne next Saturday (October 20) will be described from the race-course by Mr. Eric Welch and will be relayed by 3LO, Melbourne. There is no nonsense about the Australian racing clubs with respect to broadcasting running descriptions from the race-courses. Practically every race-meeting is described from the courses in and around Melbourne and Sydney.

SOME queer fish among radio fans! After the recent meeting of the Amateur Radio Society of Wellington, when the gathering was dispersing, one listener reported to an official of the society that he had intended to voice a complaint against serious interference with broadcast listening in the Aro Street vicinity. He was late arriving at the meeting, but when opportunity did offer to voice his complaint his bashfulness apparently held him back.

HE afterwards said that he and other listeners had lodged complaints with the P. and T. Department, but the amateur continued to transmit during New Zealand broadcasting hours, and was interfering with reception. The said amateur had so far eluded detection.

A **NOTHER** fan who attended the Wellington Society's meeting was complaining, after the meeting had closed, that power line leakage was overwhelming at times in Newtown. It

broke out intermittently, but raged for quite a while at times, and it was necessary to close down while it was rampant. This gentleman also let an opportunity slip to bring his trouble before the meeting.

MR. C. C. K. FEAR, who lectured before the Wellington Radio Society at last week's meeting, is now widely recognised as the leading authority in the capital city on the Browning-Drake circuit, which was the theme of his lecture. He asserted unhesitatingly that, valve for valve, the Browning-Drake was the most efficient circuit yet brought out, and was better than a much-boosted circuit which originated in Auckland. He said he had tested both exhaustively, and he pinned his faith to the Browning-Drake.

MR. FEAR is an authority on all types of circuits, but became, through experience, a strong advocate of the Browning-Drake as the best four-valve circuit so far introduced into New Zealand. He insists, however, on careful construction, particularly in the lay-out of the parts, the correct radio-frequency valve ("199" type or equivalent, by preference), first-class parts, correct tapping of coil for the first valve, and perfect neutralisation. There are, Mr. Fear admits, better circuits, but they require more than four valves.

THE popularity of the instructive lectures given at the meetings of the Amateur Radio Society of Wellington was evidenced by an attendance of sixty at last week's gathering. It is not generally known that for the small sum of 5s. per annum any person of either sex can become a member of the society. Applications for membership should be addressed to the secretary, Box 303, G.P.O., Wellington.

THE high esteem in which Mr. J. H. Owen, ex-president of the Wellington Radio Society, is held by the members was demonstrated at last week's meeting when loud applause greeted a message of his best wishes to the society was conveyed by Mr. N. Keith, who had just received a letter from Mr. Owen, who is on a visit to London. No doubt, on his return to Wellington in about nine months' time Mr. Owen will relate his experiences of broadcasting in America and Great Britain to a general meeting of the society, as he did on his return from a former tour abroad.

"MY neighbours complain that the late dance music from the Australian stations keeps them all awake at nights. They threaten legal action. I defy them. Am I within my rights?" This was the context of a note sent by a listener to a Wellington lawyer, who happens to be a thorough radio fan. His reply was as follows: "Legal rights should never enter into a matter like this. What is fair and just between neighbours should be your guiding principle. Remember the 'golden rule.' Close your window and reduce the volume of your reception. Be the sport I know you to be in other things."

The client showed me the letter. He and his neighbours are friends again.

IT is strange how eager some neighbours are to quarrel when disputes or differences can be easily settled amicably by a sensible consideration of the position. In a Wellington suburb two neighbouring listeners were at daggers drawn with each other over the howling valve nuisance. Each accused the other of causing interference intentionally, and there were unveiled threats of personal violence and midnight aerial-chopping invasions. A plain, honest-to-goodness, matter of fact radio fan, who resided near the other two, prevailed upon them to permit him to act as an intermediary. He then demonstrated beyond a shadow of a doubt that neither of their sets could cause howling, as they were both perfectly neutralised. A still further demonstration dismayed the intermediary by proving his own set was the culprit!

HEARD a listener criticising a gramophone record the other day. It contained the playing of one of the great masters' overtures by the wonderful Philadelphia Orchestra. "What I say is this," he remarked, "that composition is as old as the hills. Why can't they give us something new?" There is no hope in this world for an individual like that. No reply was possible, and he got none.

A **LARGE** number of Wellington listeners who cannot tune out 2YA sufficiently to hear 4YA, Dunedin, are now regular listeners to the Dunedin station on Wednesday evenings when 2YA is silent. The writer finds that 4YA excels in tone and the steadiness of its wave. The programmes, too, compare very favourably with any other on the air. Dunedin, it must be remembered, long held the position of musical centre of New Zealand. Ask some of the old generation.

EVERYBODY is asking for more relays of the Yankee short-wave station, 2XAD, Schenectady, from 2YA, Wellington. This feat is more than a mere "stunt," for 2YA has given us almost perfection in rebroadcasting the American music. A crystal set owner exclaimed, "It's nothing short of marvellous to hear the superb American orchestra as clear as 2YA on my little set, which cost me exactly ten bob."

A **WORD** of praise is due to the transmission by 3YA, Christchurch. This station is heard during the afternoon sessions in Wellington with full loudspeaker volume without a trace of fading, and the tone is delightfully natural. Of all "outside" stations in the evening, also, 3YA is the favourite among Wellington listeners. The Christchurch station spans the 175 miles between the two cities with that ease which makes it both a day and night pleasure.

"THE right man in the right place" is the verdict of the Wellington Radio Society regarding their new secretary, Mr. W. H. Taylor. A young Scot with an abiding and genuine enthusiasm in radio matters, clerical capability, and a cautiousness and discretion characteristic of his race, Mr. Taylor makes an ideal secretary.

THE London "Popular Wireless" says: "Some time ago there was a great agitation about the official adoption of Esperanto as a language for international use by the amateur transmitters of the world. Although, since then, the total number of them has increased by an almost unbelievable amount, the transmitters do not seem to have favoured the suggestion in the very least! The result is that English is the unofficial 'international language,' and that the many thousand transmitting and receiving amateurs who live abroad use English for their 'radio conversation' and for the remarks on their Q.S.L. card."

Very Cheap Train Trips to ROYAL A. & P. SHOW

PALMERSTON NORTH
[30th Oct. to 1st Nov.]

SPECIMEN RETURN FARES

(Not including Inter-Island Steamer Fares)

From	1st Class	2nd Class
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Thorndon	0 19 5	0 13 0
Christchurch	1 1 4	0 14 3
Greymouth	2 13 2	1 15 6
Dunedin	3 11 8	2 7 11
Invercargill	5 2 2	3 8 3

Tickets issued from 27th October to morning of 1st November in North Island and from 25th to 30th October (inclusive) in South Island.

All tickets available for return until 8th November.

HAVE A ROYAL TIME AT PALMERSTON N.

THE WOMAN'S POINT OF VIEW

By "VERITY"



My Lady in London

THE printed crepe de chine frock which does duty for so many summer occasions, relies on some little touch of originality in trimmings for its distinction, for small and indeterminate patterns are still fashionable. Collars of fine linen lawn or organdie muslin, decorated with broderie anglaise, are a favourite finish to these frocks. They are usually let into the silk with deep scallops or points across the shoulders. One popular model has a small "V" of embroidered muslin in the front, which is continued in a tapering collar reaching almost to the waist at the back.

AN original hat, which should make its appearance at seaside resorts, is made of fine beige canvas entirely covered with tiny discs of bamboo-wood in its natural shade. The discs are very thin and light and sewn to the hat at the extreme edge, so that when the owner of the hat moves her head they swing to and fro. This model is striking enough to need no trimming except a narrow band of dark brown ribbon, which is also used to bind the edge of the brim.

COURT shoes of crepe-de-chine which can be purchased in any shade to match coloured evening frocks are being decorated with hem-stitching in silk to match, forming a design of squares, circles, or triangles. Other models have birds, flowers, or butterflies outlined in hem-stitching with silks of contrasting colours, and more elaborate shoes are made in silk with beaded heels.

VARNISHED string stitched to a canvas background makes original hats which are useful for many occasions. The models in this material are small, and the string crown, which is usually in some bright col-

our, is allied with a narrow brim of stiffened net or fine felt. The string is stitched into a definite pattern, such as a scroll or key design, and the hat needs no other trimming.

CHIFFON scarves are useful for providing protection against the sun, for although very light they are thick enough to prevent unwanted sunburn. They are made in printed designs or in pale pastel shades to harmonise with summer frocks, and the more elaborate models are decorated with broderie anglaise in silk to match the material. The triangular shape is the most favoured, but long scarves are useful for summer evenings when a light wrap is required.

The Mechanical Age

ARE we mechanising our children? In these days of complicated mechanical toys and mechanical amusements the thoughtful mother is confronted with another problem—will her child's imagination be impaired or will it be stimulated by so much machinery?

The Hon. Mrs. St. Aubyn gives the following views on this important subject:—

WE have all of us heard the story of the child who broke a watch in order to see the wheels go round,

saw puzzles and elaborate mechanical engines.

IN addition to his constructive toys the modern child is educated at his first school to use his fingers and his brain. This co-ordination of mind and muscle is taught in our nursery schools to children of even two years old. The child, therefore, has fingers he has learnt to control, a mind with which he has been trained to think things out, and toys through which he has been taught how to put things together.

IN these days cars are cleaned at home, also repaired. Cogs, wheels, electricity and wireless are a main topic of conversation, and to keep the child quiet he is given boxes of toys consisting of these wheels, cogs, screws and spare parts, and, assisted by his enthusiastic parents, is enabled to build and design houses and engines, in fact, to become an amateur engineer before he has left the nursery.

THE nursery itself, apart from the tops, has this mechanical note running through it, such as an electric fire or electric iron, cots which screw and unscrew and need washers. Labour-saving devices and patent gadgets are adjuncts of the modern nursery.

AT very many children's parties kinemas are a favourite amusement. The shop windows are full of mechanical toys and the streets of mechanically propelled engines. In fact, life for us and our children is undoubtedly to a great extent mechanised. Will this mechanical age kill the child's imagination or merely stimulate it to further creation?

THE child who is unimaginative without doubt is assisted to use his thoughts to some practical end. Whether, however, this mechanical age will produce the type of mind from which emanates literature—the type mind which is above pure mechanics—still remains to be seen.

Disappointed

*My soul is like a garden overgrown,
My heart is like a dead pomegranate tree,
A woodland grove bereft of minstrelsy,
A nest from which the birds long since have flown.
I have exchanged sweet Manna for a stone,
And bartered freedom for captivity;
I have forgone my birthright; now have I
Nor right nor wish to call my soul my own.*

*Yet if I saw you passing in the street,
And you should look at me as once before,
I think the sun would shine for me once more,
And Autumn turn to resurrected Spring;
And I would leave behind my leaden feet,
And feel the impulse of a soaring wing.*

—MAURICE BARING.

Awarded First Prize by the "Saturday Review" in a competition for a sonnet in the manner of Christina Rossetti.

PINK, green and yellow pearls have all had a short run of favour with the fashionable world, but the latest invention is the iridescent pearl, which reflects all these shades and many more on its uneven surface. Pearl "chokers" are replaced by long strings of these beads in iridescent colouring, and the clasps are usually of emeralds, rubies, sapphires and other coloured stones to match the changing tints of the necklace.

and we have all been warned how destructive boys can be. But I have a shrewd suspicion that no little boys now break watches in order to see the works, because we train our children from babyhood onwards to understand how toys work and to put things together—it is an age of constructive, not destructive, teaching.

IN olden days the only toys were rag and sticks. As civilisation advanced and life became more complicated, so did the toys. The plain wooden dolls, to be seen at museums, were replaced by Dutch dolls with movable legs, rag dolls, wax dolls, china dolls, celluloid dolls, and, finally, washable composition dolls. Animals varied from woolly ones to grotesque ones. Educational methods then suggested a need for constructional toys. From that evolved jig-

Savoury Salmon.

ONE tin of salmon, three or four arrowroot biscuits, one small onion, some chopped parsley, a little milk, one tablespoon butter. Fry onion and parsley in butter. Add a little milk and juice from salmon. When boiling thicken with powdered biscuits. Add salt and pepper to taste, and more milk if it looks too thick. Lastly, add salmon. Heat well through without allowing to boil. Serve very hot.

A Quick Way of Tacking Long Seams.

WHEN you have pleated the seam up, and have it altogether in your hand, run the needle and cotton right through the middle and pull it out.

TAKE

Pulmonas

RELIEF BY INHALATION

FOR COUGHS
AND COLDS



Annotations of Annabel

DEAREST:

The year's at the spring, the days—assisted by Mr. Sidey, as amateur Olympian—grow longer, and the frocks shorter or so it seems to the casual loungeur on the Quay, as he surveys the dimpled knees so lavishly displayed in and out of season in this year of our Lord, when the shy modesty, maybe the prurience, of times that are past is thrown to the winds.

DRESS shows continue to amaze by variety of gleam and glitter, frill and fluttering modishness. Attractive are Celanese sets of intimate garments, comprising princess petticoat corset and "combs," Titania-ish in texture, and complete with suspender and brassiere which are the inward and indispensable panoply of outward and bodily grace. Colours in this sequence of perfection pass from pastel-pale to Cimmerian hue, the latter appealing to her who loves to strike a bizarre and differing note. By the way, what a fascinating "night" (in Cuba Street parlance) was that sported by Gloria Swanson in her role of a stranded San Francisco trollop in the extremely able film dramatisation of Somerset Maugham's "Rain."

LATEST and greatest of mannikin shows, in and out of fiction, is that in "The Strange Vanguard," organised for an impertinent young female who, by nimble wit and gift of the gab, so captivated a millionaire that he amiably ordered a dress show on his yacht of dreams, ex-

quisite creations being paraded and purchased for the adventurous tripper. And incredibly, for so showering this sartorial manna, the eccentric philanthropist asked nothing in return. Not even civility! Of such stuff as dreams are made, indeed, when in the way of virtuous femininity come such chances!

BEAUTY seldom comes into its own in these days when the ugliness of chic is our choice, unclassic draperies, the Eton crop; although there are indications on the far horizon of a return to a more picturesque, if less untrammelled mode. Fresh fillip has been given in England to the cult of beauty by discovery of a very lovely model indeed. Limned as mannequin by the attractive art of Lewis Baumer, she is a miracle of grace; in conventional evening dress poised and beautiful; and in some misty vignettes her carriage of head and profile of perfection find delightful portrayal by well-known painters of the day.

IN an audience that recently listened to a disquisition on psychology was your Annabel, led thither by a friend insistent upon the education of the soul. Imposingly clad in green and sparkling gown, with piled and snow-white coiffure, enormously pink-posied and cloaked in geranium-red, the lady lecturer took the eye as well as the platform, while benevolently she dilated on the Way of Success to us who sat at her feet, closely clasping leaflets of printed tributes to the gifts and graces of

the smiling exponent of the sovereignty of the spirit.

A PLEASANT avocation and a profitable, one surmises, thus to sit in the seat of the mighty and assure one's dear fellow-creatures of what, if they have any sense, they know perfectly well already; the efficacy of right thought, wise direction of the spark of divinity imprisoned in the body, and the undoubted importance of that solar plexus which is the metaphorical power behind the throne.

UPON my incredulous mind, I admit, the lecture, delivered in a voice not quite adapted to the difficult art of the orator, had a soporific effect. Much of the discourse consisted of allusions to the Christian doctrine in its relation to psychology, well watered down and offered as something fresh for the spirit to browse upon and find sustenance in the Pursuit of Perfection. Surely it argues extreme superficiality of reasoning, or desperate need of reassurance, when a few obvious conclusions and collated clichés are eagerly accepted as hope and healing for body and mind.

REFLECTION on the Way to Win brings me to Pamela Frankau, that glad girl, daughter of the novelist, who makes naive remarks in a recent publication. Satisfying possible itch for the limelight, she exploits the ego in modern manner, and with Nietzschean revelations of the Will to Get the Best of It, dilates one calculating eye to the Main

Chance, the Best Time, the Better 'Ole. "To go" is the creed, it is clear, of the gospel according to post-war youth. Never be weary, never be sad, always be on the social map, and never, never fall into the clutches of the futile, the vacuous, or the dud. In which latter ambition I concur, though not so expert as my juniors as a dodger of the dull. Midway in the vivacious chronicle lurks a grain of sentiment for the swain of the moment, serving further to illuminate the chasm 'twixt Now and Then—when at emotional moments, Victorian eighteen-year-old thrilled to something like this—

*"Great in the sea and heaven,
Yet greater is my heart;
And fairer than sea or heaven
Flashes and beams my love."*

That's the stuff they gave the girls in the nineties!

Your
ANNABEL LEE.

Books

THE STRANGE VANGUARD. (Arnold Bennett.)

MR. ARNOLD BENNETT is at the height of his gay imagination in his latest tale of a tub—the tub in this case being represented by the palatial yacht of Lord Furber, Midlander and millionaire. To this floating palace, which radiates a golden glitter reminiscent of the Arabian Nights, is kidnapped with ease and dexterity a travelling financier with whom it is desired to make a business deal. Accidentally, also, included in the kidnap is vivacious and attractive Harriet Perkins, who without haste or pause proceeds to make hay of the hearts of those susceptible males who hover within her necessarily restricted orbit.

Lord Furber seeks solace from discordant domesticity in the Mediterranean by means of an organised and entertaining cruise, which is laden with potentialities that gradually become

apparent. Descendant of many Five Towns protagonists, created for our delight by Mr. Bennett's ardent fancy, he is possessed in full measure of their audacious chicanery, their brag and their bounce, allied with an engagingly simple love of the limelight and ostentatious display of newly-acquired wealth. Equally true to the Towns is Maidie, his wife, with whom periodically, in the Tennysonian tradition, he falls out, he knows not how, and kisses again with tears.

Through all the merry saga is an atmosphere of gay bumptiousness and vulgar luxuriance of detail. 'Tis all droll and diverting, and very, very Bennett-ish. Amusing are his puppets, though such as never walked in flesh and blood; and there are shrewd notes of observation concerning the social comedy, occasional penetrating analyses of the motives of men, and now and again an illuminating sentence like this: "He felt both happy and wicked; a sensation than which there is perhaps no finer in human life." In which opinion he will have many adherents.—R. U. R.

IT appears that the B.B.C. is now taking an active part in the reformation of criminals. At Wormwood Scrubs it is stated there is a class of sixty prisoners who systematically follow the educational talks from Savoy Hill.

Click! went the Kodak



*"I haven't got a baby any more," Mother will
some day say. Oh, but she will have.
There he is in that little book of
Kodak snapshots. It's full of him.*

You need a KODAK in your home!

Kodaks from 30/-. Brownies from 10/6. Catalogue Free

OF ALL KODAK DEALERS

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

Features of Next Week's Programmes

Notes from 1YA

UNDER the direction of Madame Irene Ainsley, excerpts from "The Country Girl" will be produced at 1YA on Monday. This famous musical comedy of Monckton's is one of the most outstanding of stage successes. All the best of the choruses, solos and duets will be sung on Monday.

The supporting programme will be of high merit. Numerous old favourites will be sung, by Miss Marjorie Fair, Miss N. Macklow, Mr. Len Keren and Mr. Leo O'Malley. The orchestra will also present varied selections and Mr. A. B. Chappell will speak on the "Settlement of New Plymouth."

THE Clarion Glee Singers will be responsible for the major portion of Thursday evening's entertainment. Their items will include an interesting budget of choruses as well as two duets. The solo items will be "The Greatest Wish" by Miss Alma McGruer, "Sweet and Low" by Mr. J. Simpson, and "The Braes o' Mar" by Mr. D. Black. Also on the programme will be the Griffiths Duo who will present humorous sketches. There will be items by the Auckland Trio and special gramophone records.

A SPLENDID entertainment will be presented on Friday evening, the singers being Madame Mary Towsey, Miss Nora Treacy, Miss E. Pearce, Mr. J. McDougall, and Mr. J. Bree. A wide range of solos and concerted items will be presented. The selections of the Studio Orchestra and Auckland Trio will also be of a high standard.

One of the records to be produced on Friday evening will be the singing of the prologue to "I Pagliacci," with orchestral accompaniment. The singer is Mr. Lawrence Tibbett, who is acclaimed as a great baritone.

Prominent on the evening's programme will be a dramatic recital to be given by Mr. J. F. Montague and Miss Daphne Knight, a scene from "Richard the Third," in which the characters are the Duke of Gloucester and Lady Anne. Mr. Montague will also give two humorous pieces.

THE "Pilgrims' Chorus" from "Tannhauser" will be the opening number of the Lyric Four on Saturday. Other concerted numbers will also be presented. The solos will be "Off in the Stilly Night" by Mr. A. Ripley; "Boreas" by Mr. E. Thomas, and "Tell Her" by Mr. H. Richards. Mr. McElwain will again be the purveyor of humour.

2YA Features

A GROUP of fine old Scottish songs will be sung by Mr. John Prouse on Monday evening, "Turn Ye to Me," a beautiful Gaelic number, "The Deil's awa with the Exciseman," and the stirring "Scots Wha' Hae."

Miss Nora Gray, the possessor of an excellent radio voice and a most artistic singer, will contribute two songs by Schumann, and two by Brahms. Associated with Miss Gray in a duet will be Miss Mollie Fenton, also a very artistic singer, who specialises in classical songs. The duet will be "From Far Away." As solos, Miss Fenton will sing songs by Schubert and Mallinson, the former being the well known "Death and the Maiden."

MR. ERIC RISHWORTH, a tenor with a pleasing radio voice, and temperament, a popular performer at 2YA some time back, and an able exponent of the classical type of song, will sing Schumann's "Devotion," and Mendelssohn's "On Wings of Song." The latter is often heard as a violin solo, and listeners can expect a charming rendition from Mr. Rishworth. Miss Joyce Downing, a promising pupil of Mrs. Ethel Mackey, will contribute a number of pianoforte items. Mrs. Kathleen Shaw, who will be responsible for two elocutionary numbers on Monday evening, is a pupil of Mr. Stanley Warwick. She has appeared previously with him in sketches at 2YA, and is an artistic performer.

One of the most popular singers at 2YA, Miss Myra Sawyer, will make a welcome reappearance on Tuesday evening. Since last she sang in the studio she has had several important engagements by country musical societies. Her items on Tuesday evening will comprise two solos, "Lovers in the Lane" (by Lehmann) and "The Bird and the Babe" (by Lieurance).

A YOUNG pianiste from Masterton, Miss Constance Donald, will be playing on Tuesday evening. She is a pupil of Miss Valerie Corliss, a teacher with English and Continental experience. Several pupils of Miss Corliss have previously performed at 2YA, and have been very favourably received.

Mr. William Boardman, a powerful baritone bass singer, very popular at 2YA, will sing Shaw's well-known "Smugglers' Song" and Mullinar's "Car-goes."

A great favourite with listeners, Miss Nora Greene, contralto, will sing "The Silent Vale," "June" and an operatic number "Lungi dal caro bene" from Secchi's "Guilo Sabino," as arranged by A.L., a sister of Liza Lehmann.

The popular tenor voice of Mr. Will Hancock will be heard in "Bonnie

Mary of Argyle," "Duna" and "Rose of My Heart."

Humorous items on Tuesday evening will be given by Mr. Doug. Stark. The final portion of Tuesday evening's programme will consist of a Parlophone gramophone recital, arranged by Billiards Ltd.

FOUR exceptionally fine quartettes will be sung by the Lyric Quartet on Thursday evening. These will be "Sailors' Chorus," "Lucky Jim," "Where my Caravan has Rested," and "Home Sweet Home." The members of the party will also contribute solos. Humorous items will be given by Miss Rose Carte. The instrumental portion of the programme will be contributed by the Central Mission Band, which in itself will present a most enjoyable evening's entertainment.

FRIDAY evening's entertainment will be of the literary and operatic type. The literary talk on this occasion will be given by Mr. J. H. Murdoch, of Scots College. His subject will be "Browning." Madame Eugenie Dennis, the well-known teacher and adjudicator at competitions, will give two elocutionary items.

The soprano and contralto voices to be heard on Friday evening will be those of Miss Veronica McKenzie, and Miss Agnes McDavitt respectively.

Mr. Edwin Dennis, well-known as a tenor soloist on concert platforms throughout the Dominion, will sing the famous "On with the Motley" from "Pagliacci," and "Rose Marie" from the musical comedy of that name. The baritone singer for Friday evening will be Mr. Claude Moss, one-time champion at Wellington Competitions, and well-known on the concert platform. He will contribute solos from "Scipio" and "Faust."

SATURDAY evening's programme will be as good as any that have ever been broadcast from 2YA. A bright week-end programme will be presented by the orchestra, and the Melodie Four will be responsible for the vocal portion of the musical programme. As quartettes they will sing "In Absence," "Mulligan Musketeers," and "Breeze." Mr. George Titchener will supply humour.

3YA Notes

DERRY'S Military Band (under Mr. J. Scott), Miss Dulcie Mitchell, Miss Anita Graham, Mr. W. Bradshaw, Mr. Jock Lockhart, and Mr. R. R. Wills are contributing to Monday evening's programme. A very engaging programme will be presented by the vocalists and instrumentalists. Mr. Jock Lockhart will, of course, contribute Scottish humour, in which he excels, and Mr. R. R. Wills will give two elocutionary items.

"THE Dancing Mistress," another of Monckton's brilliant works, will be presented on Wednesday evening by the Radiolians. The play is full of good tunes and should be as enjoyable as have been the musical plays presented by the Radiolians. Also on the programme will be Mr. H. Instone, in humorous recitations, the Studio Trio, Mr. E. N. Trenberth (flugel horn), and some special records.

THURSDAY evening's programme will be of the classical type. On this occasion a feature will be made of French and Italian composers, both vocal and instrumental. The items chosen for presentation are of a very varied type, and range from the most modern compositions to those which were popular forty to fifty years ago. Of the latter is "Il Bacio." The vocalists for the evening will be the Madame Gower Burns Quartet. In keeping with the nature of the evening will be the recitations to be given by Miss Maiona Juriss.

EXCERPTS from the opera "Martha," whose popularity seems to be ever-green, will be presented on Friday evening. One of the songs to be sung from this tuneful work by Flotow will be the old Irish melody set to Tom Moore's words, "The Last Rose of Summer." The vocalists of the evening will be the Melodious Four and the items to be rendered solos as well as concerted. Three elocutionary numbers will be given by Miss Lily Kinsella. Popular and novelty numbers will be supplied by means of gramophone records.

THE Avonion Minstrels will be helping with Saturday evening's vaudeville programme. An interesting budget of songs, including several redolent of the plantations, will be sung as concerted and solo numbers. Mr. E. Rogers will sing "Nirvana," Mr. Doug. Clapper-ton a popular song, Mr. J. Filer "The Mermaid and the Tar," and Mr. Frank Olds will give a musical monologue entitled "A Mariner's Tale." Selections will be contributed by the Studio Orchestra. Mezzo-soprano solos will be sung by Mrs. Stephen Parr, humorous recitations will be given by Mr. L. T. J. Ryan, and there will be specially selected gramophone records.

ON Sunday afternoon, October 28, 3YA will broadcast an organ recital to be given in the Congregational Church by Mr. Alec Mill. This will be Mr. Mill's last performance in Christchurch, as he is taking up his residence in Wellington.

Lawrence Tibbett, the baritone, who amazed the gramophone world by his H.M.V. recording of "The Prologue" from "I Pagliacci," was born in California, and commenced his career on the stage. From there he drifted into light opera, but on coming to New York was engaged by the Metropolitan Company. He memorised the Italian roles before he knew the precise meaning.

S. P. ANDREW,
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ing of the words. He has triumphed in at least twenty roles, and the San Francisco Company this year is producing special operas for his benefit. One of Tibbett's characteristics is his marvellous powers of expression.

Lecture on India at 3YA

THE Rev. Henry W. Whyte, M.A., a missionary of the Congregational Church, now on furlough in New Zealand, has been engaged to lecture at 3YA on Wednesday, October 31, on Southern India and its people. Mr. Whyte will speak from 20 years' experience.

4YA Attractions

THE church service to be relayed on Sunday evening will be from the Moray Place Congregational Church, when the preacher will be the Rev. Albert Mead, M.A., Hon.C.F. Mr. Mead, who has recently arrived from England, has had long experience in religious work in London, and in South Africa, and is a graduate of Cambridge University. The Rev. Mead served on the western front for nearly four years, chiefly in the Ypres sector, where he was associated with the forces from New Zealand, in "Otago Camp" near Dickebusch. Mr. Mead succeeds the Rev. William Saunders, who has officiated at the Moray Place Congregational Church for some years.

COMMENCING this week, the St. Kilda Band has been engaged to give a broadcast performance every Tuesday night in future. It will be good news for Dunedin listeners that a weekly band concert is to be the order again. Mr. James Dixon, the conductor, has chosen a fine programme of music for Tuesday's concert, including the "Diamond Star" overture by Greenwood, and other well-known compositions. Miss Wyn McPeak, Mr. L. E. Dalley, with Mr. E. G. Bond, will contribute to the programme. Mr. Lester Moller will give some humorous elocutionary numbers, including Masefield's "Laugh and be Merry" and Stanford's "Facial Surgery." Rev. Bramwell Scott will contribute the second address of his series on early New Zealand on Tuesday evening, his subject this time being "William Hobson, our first Governor."

THE programme for Wednesday night as usual will be of the variety type. The vocal soloists, each of whom will sing bright fox-trot songs and humorous numbers, will comprise Miss Betty Roberts (light mezzo soprano), Miss Thelma Blackman (light soprano), Mr. Chris Harlie (the Lancashire comedian), and Mr. J. Paterson (Scottish comedian).

McCaw's Saxophone Trio will play Saunderson's "Wandering Thoughts" and solo saxophone numbers will be rendered by Mr. J. McCaw. The Dunedin Banjo Trio will as usual feature some popular songs, old and new.

THIS week is known as Animal Welfare Week, and at 7.30 on Friday evening, Sir George Fenwick will deliver a talk on this subject. This will be followed by

a Studio Concert until 9 p.m., during which items will be rendered by the following artists: Miss Molly Vickers, Mr. L. M. Cache-maille, Miss Madge Yates, and Mr. George Christie.

THE 4YA Harmonists quartet will render two stirring songs by Cole-ridge-Taylor, namely "Drake's Drum" and "The Viking Song" on Saturday. The members of the quartet will also contribute solo numbers. Miss Mae Matheson will be heard in "The Crown." Miss Mollie Andrews (mezzo soprano) will sing Beethoven's "The Quail." Mr. C. C. Scott (tenor) among his numbers will present "My Sweet Repose" (Schubert), and Mr. F. M. Tuohy (baritone) will sing "In the Western Sea." Number will be played by an instrumental trio, comprising violin, flute and piano. Mr. A. R. Watson (violinist) will contribute "Minuet" from "Jupiter Symphony" (Mozart) and flute solos will be given by Mr. J. W. Stewart. Miss Roberta Williams (elocutioniste) will also be on Saturday's programme.

A Feast of Features

Fare from 2YA

QUITE a feast of good matter has been given listeners to 2YA of late in the form of special relays and features. On the evening of October 8, listeners were treated to a special description of the championship fight between Leckie and Radford. This was a very thrilling piece of work, and was greatly appreciated by listeners. Then of course there was the return of the All Blacks. This was an outstanding event, and full advantage was taken of it.

ON the evening of Thursday, an unexpected but thrilling opportunity was given all listeners by the band of H.M.A.S. Australia, under Warrant Bandmaster Ventry, attending during the children's session, and giving a special half-hour recital.

On the evening of Monday, October 15, Sir John Salmond the noted aviation expert, spoke from 2YA, and on Tuesday the reception given Lord Lovat was specially broadcast by 2YA.

THESE features will serve to show listeners that every opportunity is taken to put them in touch with all events and incidents of note. Through radio, they are thus being put more closely in touch with actual events than almost by personal attendance—with a very great economy of time. These features, needless to say, have been greatly appreciated by listeners.

Two Distinguished Speakers

Given by 2YA

OCTOBER 15 and 16 were made notable for 2YA by two distinguished speakers, at present in Wellington, being put on the air. At 9 o'clock on Monday evening, October 15, Sir John Salmond, the noted aviation

expert now in New Zealand, addressed the microphone of 2YA on the subject of "What Aviation Means to the Empire." Sir John Salmond is in New Zealand on a specific mission of investigation as to the condition of aviation in these parts, with a view to future recommendations and development. His address was listened to with rapt attention by all listeners, and was unquestionably a treat of the highest calibre.

On Tuesday, a civic reception was accorded Lord Lovat, now in New Zealand on a mission from the Imperial Government in connection with migration. 2YA was specially on the air to broadcast the whole of this ceremony. It is hoped that a suitable opportunity will be found to enable listeners to be specially addressed by Lord Lovat.

An Ideal Aerial.

For Country Listeners.

"WHAT do you consider an ideal aerial for a country listener?" asked a visitor to Wellington the other day.

Up-country, where interference is not possible from a local station a long aerial is desirable, as the longer it is up to a certain point the better it will bring in the distant stations. A long aerial in Wellington, close to 2YA, renders it difficult to cut out the big station owing to the tuning being broadened by a long aerial. However, up-country, away from a big station, this difficulty has not to be contended with.

A good up-country aerial would be as follows:—

Length, including the lead-in, 145 feet.

Height above all obstacles (out-houses, fences, hedges, trees, etc.), 60 feet.

Type of aerial, inverted L with the lead-in not brought in at a sharper angle than 45 degrees to the aerial.

Aerial wire; enamelled, seven strands of 21 gauge, or thereabouts, the lead-in to be the same type of wire.

Insulators; not fewer than four at each end of the aerial and so spaced that the aerial itself is not closer than 10 or 15 feet from either mast.

Halyards; ordinary galvanised clothes-line wire.

Stays of masts; galvanised fencing wire or galvanised clothes line wire, with each stay "broken" by two insulators each about 25 feet apart. At least six stays to each mast.

Masts; straight wooden poles, tarred at the foot where they enter the ground to prevent speedy rotting.

Direction of aerial; not important, as so high an aerial has very little directional effect. An aerial less high should have the lead-in end nearest the direction of the furthestmost stations which are most frequently desired.

The aerial need not be horizontal, but if one end is higher than the other the lead-in end should be the lower.

Lead-in to house; should be through a long porcelain tube, preferably pushed through a hole bored in the top of the window frame.

The "earth"; if possible should be the nearest water-pipe to which it should be firmly soldered, and the joint then tightly bound with adhesive tape to prevent corrosion. The absence of a water-pipe can be successfully overcome by soldering thick copper wire on the inside bottom of two or three kerosene tins so as to join them together electrically. The kerosene tins should then be filled up with wood ashes or finely-crushed charcoal or coke, and then buried with 3ft. of earth above them after firmly soldering the earth-wire to each of them. The tins should be buried as close to the radio set as possible. An old piece of water-pipe may be stuck down into the centre of one of the tins and should project a few inches above the surface of the ground. Water should be frequently poured down the pipe to keep the contents of the tin well moistened. A cork or wooden peg should be stuck into the top of the pipe to keep dirt from getting down and blocking the descent of the water.

The earth-wire should be as heavy as possible and insulated if possible. Heavy insulated copper cable used in street electric light wiring makes an ideal earth-wire. The advantage of insulating the earth-wire is that it prevents weakening of signals in wet weather because the radio-frequency current prefers to take the shortest path to earth even though it affords a poor circuit. Therefore with an uninsulated earth wire a shorter path to earth is offered in wet weather by the current straying off the earth wire down the dampness on the side of the house to the earth, instead of proceeding along the desired circuit, which may be a trifle longer but much better. The earth-wire should be kept well apart from the lead-in wire where they enter the house.

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Full Programmes for Next

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Sunday, October 21

1YA, AUCKLAND (333 METRES)—SUNDAY, OCTOBER 21.

- 3.0: Afternoon session, selected studio items.
- 4.0: Literary selection by the Announcer.
- 4.8: Selected studio items.
- 4.30: Close down.
- 6.0: Children's session conducted by Uncle Leo.
- 6.55: Relay of service from Pitt Street Methodist Church. Preacher: Rev. Lionel B. Dalby; Choirmaster: Mr. W. Leather.
- 8.30: Relay of Municipal Organ Recital from Auckland Town Hall. Organist: Mr. Maughan Barnett.
- 9.30: God Save the King.

2YA, WELLINGTON (420 METRES)—SUNDAY, OCTOBER 21.

- 3.0: Afternoon session, selected studio items.
- 4.30: Close down.
- 6.0: Children's Sunday service, conducted by Uncle Ernest.
- 7.0: Relay of service from St. Thomas' Anglican Church, Newtown. Preacher: Rev. F. E. Fry, M.A. (Vicar of St. Marks); Organist and choir-master: Mr. Wenzel Collie L.L.C.M.
- 8.15 (approx.): Studio concert.
 - Overture: "Anacreon" (Cherubin) (Columbia Record 04054), Parts 1, 2, and 3.
 - Soprano solo, Miss Gretta Stark: "Rejoice Greatly" from "The Messiah" (Handel).
 - Recital, Miss Gracie Kerr: "Not Understood" (Bracken).
 - Baritone solo, Mr. Ray Kemp: "O God Have Mercy" from "St. Paul" (Mendelssohn).
 - Organ solo, "Ave Maria" (Schubert) (Columbia Record 02528).
 - Contralto solo, Miss Rita Arnold, "Abide With Me" (Liddle).
 - Orchestral selection, "Prelude Lohengrin" (Wagner) (H.M.V. Record D 1258).
 - Duet, Miss Rita Arnold and Mr. Ray Kemp: "Harbour Lights" (Squire).
 - Orchestral, "Symphony No. 8—Allegretto Scherzando" (Beethoven).
 - Recital, Miss Gracie Kerr: "Young Fellow Me Lad" (Service).
 - Soprano solo, Miss Gretta Stark: "Songs My Mother Taught Me" (Dvorak).
 - Band selection: "The Thistle" (Myddleton, arrgd. Winterbottom) (Columbia Record 9102).
 - Tenor solo, Mr. Frank Skinner: "Out of the Deep I call" (Martin).
 - March: "Coronation March" (Meyerbeer) (Columbia Record 02557).
 - Close down.

3YA, CHRISTCHURCH (306 METRES)—SUNDAY, OCTOBER 21.

- 3.0: Programme of selected gramophone music. (electrically reproduced).
- 4.30: Close down.
- 5.30: Children's song service conducted by Uncle David.
- 6.30: Relay of service from Sydenham Methodist Church. Preacher: Rev. H. J. Odell; Organist: Mr. W. Purdy; Choirmaster: Mr. McCaffery.
- 7.45: Recital of music—electrically reproduced.
- 9.30: Close down.

4YA, DUNEDIN (463 METRES)—SUNDAY, OCTOBER 21.

- 5.30: Children's song service conducted by Big Brother Bill.
- 6.30: Relay of service from View Street Congregational Church. Preacher: Rev. Albert Mead, M.A.
- 8.0: Relay of band concert (weather conditions permitting).
- 9.15: Close down.

Monday, October 22

1YA AUCKLAND (333 METRES)—MONDAY, OCTOBER 22.

SILENT DAY.

2YA, WELLINGTON (420 METRES)—MONDAY, OCTOBER 22.

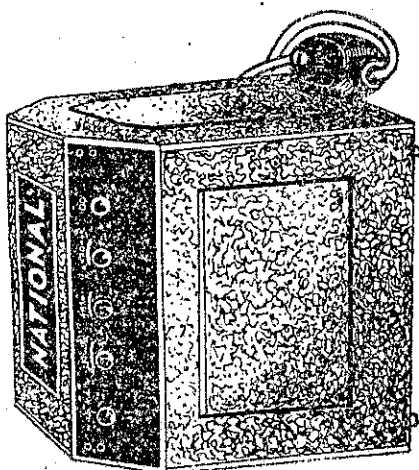
- 3 p.m.: Chimes of the G.P.O. clock.
- 3.1: Selected gramophone items.
- 4.30 and 4.55: Sports results to hand.
- 5.0: Close down.
- 6.0: Children's session conducted by Uncle Jeff and Aunt Gwen.
- 7.0: News session, market reports and sports results.
- 7.40: Lecturette—Mr. H. C. South, "Books—Grave and Gay."
- 8.0: Chimes of the G.P.O. clock.
- 8.1: Overture—The Orchestra, "Orpheus in de Underweldt" (Offenbach).
- 8.11: Tenor and chorus, Light Opera Company, "Gems from 'The Student Prince'" (Romberg) (H.M.V. Record EB7).
- 8.15: Soprano solos—Miss Nora Gray, (a) "Moonlight" (Schumann); (b) "Messages" (Schumann).
- 8.22: Pianoforte solos—Miss Joyce Downing, (a) "Toccata" (Holst); (b) "Intermezzo" (Brahms).
- 8.29: Baritone solos—Mr. John Prouse, (a) "Maiden of Morven" (traditional); (b) "Scots Wha' Hae" (traditional).
- 8.35: Symphony—The Orchestra, "Surprise Symphony" (Weber).
- 8.47: Contralto solos—Miss Mollie Fenton, (a) "Death and the Maiden" (Schubert); (b) "Baby" (Mallinson).
- 8.53: Tenor solo—Mr. Eric Rishworth, "Devotion" (Schumann).
- 8.57: Recital—Mrs. Kathleen Shaw, "The Old Stage Queen" (Wilcox).
- 9.1: Weather forecast.
- 9.2: Violin solo with orchestral accompaniment—Miss Ava Symons and Orchestra, "Reverie" (Vieuxtemps).
- March—Orchestra, "Marche Turque" (Moussorgsky).
- 9.12: Soprano solos—Miss Nora Gray, (a) "Violet" (Brahms); (b) "Lullaby" (Brahms).
- 9.18: Instrumental—The Orchestra (repeat number).
- 9.26: Baritone solos—Mr. John Prouse, (a) "Turn Ye to Me" (traditional); (b) "The Deil's awa wi' the Exciseman" (traditional).
- 9.32: Elocution—Mrs. Kathleen Shaw, "Queen Sigrid the Haughty" (Longfellow).
- 9.37: Grand organ solo—Edwin H. Lemare, "Andantino in D Flat" (Lemare) (H.M.V. Record C1455).
- 9.45: Tenor solo—Mr. Eric Rishworth, "On Wings of Song" (Mendelssohn).
- 9.49: Vocal duet—Misses Nora Gray and Mollie Fenton, "From Far Away" (Carriciolo).
- 9.53: Duet with chorus and orchestra—"We're Called Gondolieri," from "The Gondoliers" (Sullivan) (H.M.V. Record D1336).
- 9.57: Grand opera—The Orchestra, "Der Freischutz" (Weber, arr. Rhode).
- 10.: God Save the King.

3YA, CHRISTCHURCH (306 METRES)—MONDAY, OCTOBER 22.

- 3 p.m.: Afternoon session—Selected studio items.
- 4.30: Close down.
- 6.0: Children's session conducted by Scatterjoy.
- 7.15: News session.
- 8.0: Chimes.
 - Studio concert by Derry's Military Band, conducted by Mr. J. Scott, and assisting artists.
- 8.1: March—Band, "Death or Glory" (Hall).
- Foxtrot—Band, "There Must be a Silver Lining" (Donaldson).

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- 8.11: Tenor solos—Mr. W. Bradshaw, (a) "My Sweetheart when a Boy" (Morgan); (b) "My Heart Sings to You" (Ashley).
- 8.15: Mezzo-soprano solos—Miss Anita Graham, (a) "Slow, Horses, Slow" (Mallinson); (b) "Love's Might" (Denza).
- 8.19: Chorus—Light Opera Company, "Hit the Deck" (Youmans) (H.M.V. Record C1433).
- 8.23: Scottish humorous songs—Mr. Jock Lockhart, (a) "Just Off the Chain" (Lauder); (b) "Everybody Wants the Key" (Pollock).
- 8.30: Selection—Band, "Patience" (Sullivan).
- 8.42: Contralto solo—Miss Dulcie Mitchell, "Last Night I Dreamt" (Edgardo Levi).
- 8.45: Humorous recital—Mr. R. R. Wills, "How McDougall Topped the Score" (New Zealand Version of Henry Lawson).
- 8.51: Characteristic intermezzo—Band, "In a Persian Market" (Ketelbey).
- 8.58: Weather forecast.
- 9.0: Orchestral—(a) "Marche Militaire" (Schubert) (H.M.V. Record C1279); (b) "Carmen" Ballet Music, No. 2 (Bizet) (H.M.V. Record C1424).
- 9.8: Contralto solos—Miss Dulcie Mitchell, (a) "Down Here" (Brahe); (b) "Country Folk."
- 9.14: Duet with orchestra, "My Blue Mountain Home" (Dalhart), (H.M.V. Record EA 295).
- 9.18: Recital—Mr. R. R. Wills, "Gunda Din" (Kipling).
- 9.22: Mezzo-soprano solo—Miss Anita Graham, "Irish Folk Song" (Foote).
- 9.26: Waltz—Band, "Gold and Silver" (Lehar).
- 9.33: Humorous Scottish song—Mr. Jock Lockhart, "She's Mine, All Mine" (Albert).
- 9.38: Hawaiian—Hilo Hawaiian Orchestra, (a) "Hawaiian Nights" (Roberts); (b) "Aloma" (Bowers) (H.M.V. record EA310).
- 9.45: Tenor solos—Mr. W. Bradshaw, (a) "The Garland" (traditional); (b) "In Moonlight" (Elgar).
- 9.49: Chorus—Light Opera Company, "Hit the Deck" (Youmans), (H.M.V. Record C1433).
- 9.53: Spanish Serenade—Band, "La Paloma" (Yradier).
- Selection—Band, "Punchinello" (Rimmer).
- God Save the King.

4YA, DUNEDIN (463 METRES)—MONDAY, OCTOBER 22.

SILENT DAY.

Tuesday, October 23

1YA AUCKLAND (333 METRES)—TUESDAY, OCTOBER 23.

- 3 p.m.: Afternoon session—selected studio items.
- 4.0: Literary selection by the Announcer.
- 4.8: Selected studio items.
- 4.25: Sports results to hand.
- 4.30: Close down.
- 6.0: Children's session conducted by Uncle George.
- 7.15: News and market reports—book review.
- 8.0: Chimes.
- 8.1: Overture—the Orchestra, "Pique Dame" (Suppe).
- 8.11: Baritone solo—Mr. Len Keven, "On the Road to Mandalay" (Speaks).
- 8.14: Wurlitzer organ solo—Reginald Foort, "A Brown Bird Singing" (Haydn-Wood) (H.M.V. Record B2666).
- 8.18: Soprano solo—Miss Marjorie Fair, "L'Ete" (Chaminade).
- 8.21: Orchestral selections—the Orchestra, (a) "Berceuse" (Sibelius) (Soloist, Miss Molly Wright); (b) "Caprice" (Moszkowski).
- 8.29: Baritone solo—Mr. L. O'Malley, "Off to Philadelphia" (Trotiere).
- 8.33: Humour—Will King's, "Bertram at the Rotary Dinner" (Merry) (H.M.V. Record C1340).
- 8.37: Relay of musical interlude from the Majestic Theatre Orchestra under the conductorship of Mr. J. Whitford Waugh.
- 8.43: Mezzo-soprano solo—Miss N. Macklow, "Ouvre Tes Yeux Bleus" (Open Thy Blue Eyes) (Massenet).
- 8.47: Suite—the Orchestra, "Scenes Pittoresques" (Massenet).
- 8.58: Weather forecast.
- 9.0: Talk—Mr. A. B. Chappell, M.A.—"Talks on Old New Zealand—Settlement of New Plymouth."
- 9.15: Presentation of excerpts from "A Country Girl" (Monckton), produced under the direction of Madame Irene Ainsley.

Cast:

Marjorie Miss Marjorie Fair.
Nan Miss Nancy Macklow.
Jeffrey Mr. Leo O'Malley

- Barry Mr. Len Keven.
"When Birds Begin to Sing" Chorus.
"Try it on Johnnie" Soprano.
"Coo" Soprano.
"A Sailor's Life" Tenor and Chorus.
"Yo Ho, Little Girls" Baritone.
"Boy and Girl" Tenor and soprano.
"Rajah of Bhong" Baritone and Chorus.
"Molly the Marchioness" Mezzo-soprano.
"Two Little Chicks" Duet.
Entr'acte—the Orchestra.
"Under the Deodar" Soprano.
"A Dance for Jack" Baritone.
"She's Acting" Soprano.
"My Little Girlie" Tenor.
"Take Your Pretty Partner" Sextette.
Finale Chorus
- 10.0: God Save the King.

2YA WELLINGTON (420 METRES)—TUESDAY, OCTOBER 23.

- 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 Big Brother Jack.
- 7.0: News session, market reports and sports results.
- 7.25: Lecturette—Mr. A. E. Wilson of the Tourist Department, "The Milford Track."
- 7.40: Lecturette—"For the Man on the Land" by a representative of the Agricultural Department.
- 8.0: Chimes of the G.P.O. Clock.
- 8.1: Overture—the Orchestra, "Wanderer's Ziel" (Suppe).
- 8.10: Soprano solo—Miss Myra Sawyer, "Lovers in the Lane" (Lehmann).
- 8.14: Pianoforte solos—Miss Constance Donald, (a) "Island Spell" (Ireland); (b) "Sing a Song of Sixpence" (Livens); (c) "Peter Piper" (Livens).
- 8.22: Baritone solo—Mr. W. Boardman, "A Smuggler's Song" (Shaw).
- 8.26: Flute solo with orchestral accompaniment, "Serenade" (Titl), (soloist, Signor A. P. Truda).
- 8.32: Contralto solos—Miss Nora Greene, (a) "The Silent Vale" (Stephenson); (b) "June" (Quilter).
- 8.38: Tenor solos—Mr. Will Hancock, (a) "Duna" (McGill); (b) "Rose of My Heart" (Logan).
- 8.44: Humour—Mr. Doug. Stark, "My Old Home Town" (Lauder).
- 8.51: Instrumental—the Orchestra, repeat number.
- 8.59: Weather forecast.
- 9.0: Soprano solo—Miss Myra Sawyer, "The Bird and the Babe" (Lieurance).
- 9.4: Baritone solo—Mr. W. Boardman, "Cargoes" (Millinar).
- 9.8: Novelty—the Orchestra, "In a Chinese Temple Garden" (Ketelbey).
- 9.14: Contralto solo—Miss Nora Greene, "Lungi Dal Caro Bene" (from "Guilio Sabino" (Sacchi).
- 9.18: Entr'acte—the Orchestra, "La Paloma" (Yradier).
- 9.23: Tenor solo—Mr. Will Hancock, "Bonnie Mary of Argyle" (Trdtl).
- 9.27: Humour—Mr. Doug. Stark, "Eating" (Lee).
- 9.33: Musical comedy selection—the Orchestra, "The Rainbow" (Gershwin).
- 9.43: Recital of "Parlophone" Gramophone Records arranged by Messrs. Billiards Limited.
- Overture—Grand Symphony Orchestra, "Light Cavalry" (Suppe)
- Soprano solo—Bjorn Talen, "Mattinata."
- Pianoforte solo—Karol Szretzer, "Soiree de Vienne."
- Chorus and orchestra, "Aida Triumphal March."
- Hawaiian—Queenie and David Kailli—"Fijian Farewell."
- Parlophone laughing record.
- Close down.

NOTE.—The above programme is subject to alteration, for, commencing at 9 o'clock, there will be a broadcast description on relay of the championship boxing contest between Tommy Fairhall and Charlie Purdie at the Town Hall. Mr. G. P. Aldridge, secretary of the N.Z. Boxing Association, will be the announcer.

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3YA CHRISTCHURCH (306 METRES)—TUESDAY, OCTOBER 23.

SILENT DAY.

4YA DUNEDIN (463 METRES)—TUESDAY, OCTOBER 23.

- 3 p.m.: Town Hall chimes.
 3.1: Gramophone concert.
 4.25: Sports results to hand.
 4.30: Close down.
 6.0: Town Hall chimes.
 6.1: Children's session conducted by Big Brother Bill.
 7.15: News session.
 8.0: Town Hall chimes. Concert by the St. Kilda Band and assisting artists.
 8.1: March—Band, "Madcap" (Sharp).
 8.4: Tenor solos—Mr. L. E. Dalley, (a) "When Childa Plays" (Davies); (b) "My Heart Sings to You" (Ashley).
 8.10: Waltz—Band, "Queen of Rubies" (Bourne).
 8.18: Contralto solo—Miss Wyn McPeak, "In an Old-Fashioned Town" (Squire).
 8.21: 'Cello solo—Pablo Casals, "Le Cygne" (Sant-Saens) (H.M.V. Record DA 776).
 8.25: Overture—Band, "Diamond Star" (Greenwood).
 8.33: Bass solos—Mr. E. G. Bond, (a) "King Charles" (White); (b) "Linden Lea" (Williams).
 8.39: Wurlitzer organ solo—Reginald Foort, "Schon Rosmarin" (Kreisler) (H.M.V. Record B2664).
 8.43: Address—Rev. W. B. Scott, "Early New Zealand—Wm. Hobson, Our First Governor."
 8.58: Weather forecast.
 9.0: Intermezzo—Band, "Queen of Summer" (Powell).
 9.6: Concerted with orchestra—Zonophone Light Opera Coy., Gems from "The Pirates of Penzance" (Sullivan) (Zonophone Record A332).
 9.10: Recitals—Mr. Lester Moller, (a) "Laugh and be Merry" (Masefield); (b) "Facial Surgery" (Stanford).
 9.17: Dance—Band, "The Maxima" (Hurdall).
 9.23: Tenor solo—Mr. L. E. Dalley, "Ah! Moon of my Delight" (Lehmann).
 9.27: 'Cello solo—Pablo Casals, "Moment Musical" (Schubert), (H.M.V. Record DA 776).
 9.31: Contralto solos—Miss Fyn McPeak, (a) "The Bitterness of Love" (Dunn); (b) "The Wind" (Spross).
 9.36: Cornet solo with Band accompaniment, "Moonbeam" (Rimmer).
 9.41: Recital—Mr. Lester Moller, "Proverbs up-to-date" (Leacock).
 9.47: Concerted with orchestra, Zonophone Light Opera Coy.—Gems from "The Pirates of Penzance" (Zonophone Record A 332).
 9.51: Hymns—Band, (a) "Sun of My Soul"; (b) "Eternal Father."
 9.56: Bass solo—Mr. E. G. Bond, "A Dinder Courtship" (Coates).
 10.3: God Save the King.

Wednesday, October 24**1YA, AUCKLAND (333 METRES)—WEDNESDAY, OCTOBER 24.**

The programme for this evening (October 24) is the second "Mystery Night" programme arranged for by the Musical and Elocutionary Committee. Listeners will be required to give the name of the item to be performed. Full details of procedure will be announced on the evening of the performance and in next week's "Radio Record."

2YA, WELLINGTON (420 METRES)—WEDNESDAY, OCTOBER 24.

SILENT DAY.

3YA, CHRISTCHURCH (306 METRES)—WEDNESDAY, OCTOBER 24

- 3.0 p.m.: Afternoon session—selected studio items.
 4.30: Close down.
 6.0: Children's session, conducted by Uncle Peter and Mother Hubbard.
 7.15: Addington stock market reports.
 7.30: News session.

- 8.0: Chimes.
 8.1: Military Band selection—Band of H.M. Goldstream Guards, "H.M.S. Pinafore" (Sullivan). (H.M.V. Record C1283).
 8.5: Vocal quartette—Radiolians, opening chorus from "The Dancing Mistress" (Monckton).
 8.10: Pianoforte solos—Miss Aileen Warren, (a) "Colonial Song" (Grainger), (b) "Dance Negre" (Scott).
 8.18: Soprano solo and chorus, followed by bass solo and chorus—Mrs. Claris Shaw and chorus, and Mr. W. J. Richards and chorus, (a) "Tom, Dick and Harry" (Monckton); (b) "A Little Flutter" (Monckton).
 8.25: Instrumental trios—Christchurch Broadcasting Trio, (a) "Allegretto" (Schutt), (b) "Vivace" (Godard).
 8.32: Contralto solo, followed by quartette—Miss Mildred Russell and Radiolians, (a) "The Dancing Mistress" (Monckton), (b) "Cantering" (Monckton).
 8.41: Flugel horn solo—Mr. E. N. Trenberth—"Non E Ver" (Mattei).
 8.45: Recitals—Mr. H. Instone, (a) "The Whitest Man I Know" (M.S.); (b) "Counting the Kids" (MS).
 8.49: Orchestral selection—Philadelphia Symphony Orchestra, "Invitation to the Waltz" (Weber). (H.M.V. Record D1285).
 8.57: Tenor solo and chorus, followed by vocal quartette, Mr. Gregory Russell and the Radiolians, (a) "When You Are in Love" (Monckton), (b) "The at Home" (Monckton).
 9.1: Weather forecast.
 9.3: Orchestral selection—Philadelphia Symphony Orchestra, "Marche Slave" (Tchaikowsky). (H.M.V. Record D1046).
 9.11: Soprano solo and chorus, followed by contralto and bass duet—Mrs. Claris Shaw and chorus—Miss Mildred Russell and Mr. W. J. Richards, (a) "The Parisienne" (Monckton); (b) "Fly Away Jack" (Monckton).
 9.17: Orchestral novelty—International Orchestra, "El Choclo" (Villoldo), (Tango Argentino), (H.M.V. Record EA364).
 9.21: Humorous—Will Kings—"Bertram Addresses the Tenants" (Rutherford). (H.M.V. Record C1340).
 9.25: Scene followed by tenor and bass duet—Radiolians and Messrs. G. Russell and W. J. Richards, (a) "Bella You Be Bold" (Monckton); (b) "Keep Cool" (Monckton).
 9.32: Instrumental trios—Christchurch Broadcasting Trio, (a) "Entr' Acte" (Schubert); (b) "Dance Hongroise No. 7" (Brahms).
 9.41: Contralto solo, followed by soprano and tenor duet—Miss Mildred Russell and Mrs. Claris Shaw and Mr. Gregory Russell, (a) "Dance, Little Snowflake" (Monckton); (b) "While We're Dancing" (Monckton).
 9.46: Flugel horn solos—Mr. E. N. Trenberth, (a) "Because" (d'Hardelot); (b) "Killarney" (Balfe).
 9.50: Humorous recital—Mr. H. Instone, "House Painting" (MS).
 9.54: Band selection—Band of H.M. Goldstream Guards, "Pirates of Penzance" (Sullivan). (H.M.V. Record C1368).
 9.58: Final quartette—Radiolians, "Oh! It's Ripping" (Monckton).
 God Save the King.

4YA, DUNEDIN (463 METRES)—WEDNESDAY, OCTOBER 24

- 7.0 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: Relay of orchestral overture from the Octagon Theatre Orchestra, under the direction of Monsieur de Rose, Mus. Bac.
 8.11: Light soprano solos—Miss Betty Roberts, (a) "Kinkajon" (Tierney), (b) "Sunshine" (Berlin).
 8.17: Saxophone trio—Mr. J. McCaw and party, "Wandering Thoughts" (Saunders).
 8.21: Concerted with orchestra—Light Opera Company, "Hit the Deck Vocal Gems" (Youmans). (H.M.V. Record C1433).
 8.25: Humorous song and patter—Mr. Chris Harlie, "And the Nanny Goat" (Tebbermann).
 8.30: Relay of orchestral music from the Octagon Theatre Orchestra.
 8.44: Popular songs—Miss Thelma Blackman, (a) "There's a Sun Still Shining" (Pellissier); (b) "Kiss Me, My Honey" (Berlin).

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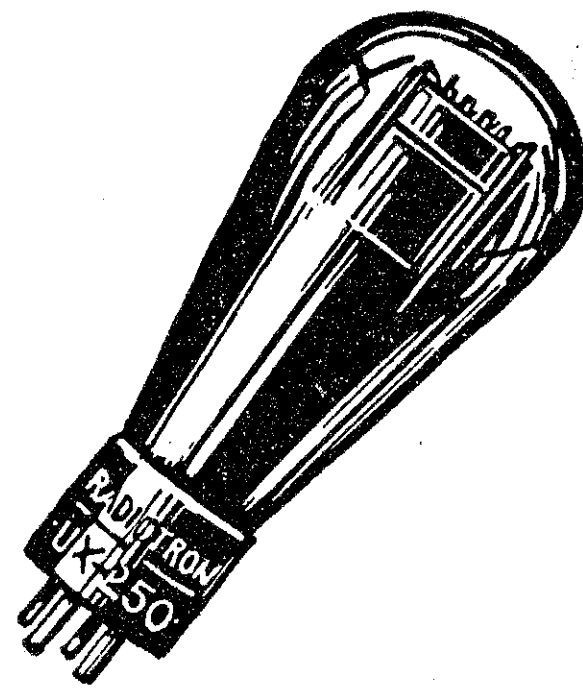
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- 8.52: Popular numbers—Dunedin Banjo Trio, (a) "Sunday" (Krueger); (b) "Sahara" (Nicholls); (c) "I'm Forever Blowing Bubbles" (Kellette).
- 9.2: Weather forecast.
- 9.4: Humorous sketch—Miss Sheila Neilson and Mr. J. B. McConnell.
- 9.12: Humorous Scottish song—Mr. J. Paterson, "I'm Ninety-Four This Morning" (Fyffe).
- 9.16: Saxophone solos—Mr. J. McCaw, (a) "Sandy River Rag" (Lenzberg); (b) "Student Prince" (Romberg).
- 9.23: Light soprano solo—Miss Betty Roberts, "Pierette and Pierrot" (Lehar).
- 9.26: Concerted with orchestra—Light Opera Company—"Gems From the Student Prince" (Romberg). (H.M.V. Record EB7).
- 9.30: Popular numbers—Dunedin Banjo Trio, (a) "When You Played the Organ" (Gilbert) (b) "That Saxophone Waltz" (Flisk).
- 9.36: Popular song—Miss Thelma Blackman, "Congo Love Song" (Johnston).
- 9.39: Humorous songs—Mr. Chris Harlie, (a) "How's Your Poor Old Feet?" (Wise); (b) "There Ain't No Flies" (Van Dicken).
- 9.46: Popular numbers—Dunedin Banjo Trio, (a) "Where Is My Meyer?"; (b) "Side by Side" (Woods).
- 9.52: Humorous sketch—Miss Sheila Neilson and Mr. J. B. McConnell.
- 9.58: Humorous Scottish songs—Mr. J. Paterson, (a) "We Came Out Together" (Fyffe); (b) "Piper McFarlane" (Lauder).
- 10.5: Band Medley—Savoy Orpheans, "Round the World Medley" (arrgd. Somers). (H.M.V. Record C1223).
- 10.9: Close down.

Thursday, October 25

1YA AUCKLAND (333 METRES)—THURSDAY, OCTOBER 25.

- 3 p.m.: Afternoon session—selected studio items.
- 3.30: Talk on "Gas Cooking" by a representative of the Auckland Gas Company.
- 3.45: Selected studio items.
- 4.0: Literary selection by the Announcer.
- 4.8: Selected studio items.
- 4.25: Sports results.
- 4.30: Close down.
- 6.0: Children's session conducted by Peter Pan.
- 7.15: News and market reports.
- 8.0: Chimes.
- 8.1: Overture—Philadelphia Orchestra, "Rienzi Overture" (H.M.V. Records ED3 and ED4).
- 8.13: Vocal quartettes—Clarion Quartet, (a) "Opening Chorus"; (b) "Miss Brown".
- 8.18: Humorous sketch—Griffiths Duo—"Popular Marriages."
- 8.33: Instrumental—Auckland Trio, "Presto from 1st Trio" (Litloff).
- 8.42: Soprano solo—Miss Alma McGruer, "The Greatest Wish" (Del Reigo).
- 8.46: Orchestral—(a) Chicago Symphony Orchestra, "Valse Triste" (Sibelius); (b) "Funeral March of a Marionette" (Gounod) (H.M.V. Record ED5).
- 8.54: Vocal duet—Messrs. D. Black and J. Simpson, "If I Might Come to You" (Squire).
- 8.58: Violin solo—Miss Ina Bosworth, "Humoreske" (Dvorak).
- 9.2: Weather forecast.
- 9.4: Vocal quartette—Clarion Quartet, "Drink to Me Only" (Old English).

- 9.8: Wurlitzer Organ solo, followed by dance orchestra: (a) "Valse Fleur" (from "Nutcracker Suite") (Tschalkowsky), (H.M.V. Record C1386); (b) "Dainty Miss" (foxtrot) (Barnes) (H.M.V. Record EA276).
- 9.16: Humour and dramatic sketch—Griffiths Duo, "The Boy."
- 9.30: Bass solo—Mr. D. Black, "Braes o' Mar" (Old Scottish).
- 9.34: Hawaiian selection—Hilo Hawaiian Orchestra, "Song of Hawaii" (Waltz) (Bories and Corbell) (H.M.V. Record EA276).
- 9.38: Vocal duet—Miss B. Smith and Mr. A. McGruer, "Garden of Happiness" (Wood).
- 9.42: Orchestral suite—Philadelphia Symphony Orchestra, "Nutcracker Suite" (Tschalkowsky), (a) "Arab Dance"; (b) "Chinese Dance" and "Dance of the Flutes"; (c) "Waltz of the Flowers" (H.M.V. Records D1215 and D1216).
- 9.55: Tenor solo—Mr. J. Simpson, "Where'er You Walk" (Handel).
- 9.59: Contralto solo—Miss B. Smith, "Sweet and Low" (Wallace).
- 10.4: Instrumental trio—Auckland Trio, "Overture to 'Figaro'" (Mozart).
- 10.11: Vocal quartette—Clarion Quartet, "For a Dream's Sake" (Mendelssohn).
God Save the King.

2YA, WELLINGTON (420 METRES)—THURSDAY, OCTOBER 25.

- 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 Aunt Gwen.
- 7.0: News session, market reports and sports results.
- 7.40: Lecturette—Mr. A. H. Nicholls, representative of Hutt Valley Horticultural Society—"Gardening."
- 8.0: Chimes of the G.P.O. clock.
Studio concert by the Central Mission Band under the conductorship of Mr. H. Baker, assisted by 2YA artists.
- 8.1: March—Band, "Freedom and Honour" (Rimmer).
Air Varie—Band, "Adeste Fidelis" (Round).
- 8.16: Tenor solos—Mr. Chas. Williams, (a) "Take Thou This Rose" (Johnson); (b) "Affinity" (Johnson).
- 8.23: Vocal quartet—Lyric Quartet, "Sailors' Chorus" (Parry).
- 8.27: Selection—Band, "Fra Diavolo" (Rimmer).
March—Band, "Port Lincoln" (Ord Hume).
- 8.42: Humour—Miss Rose Carte, "Yes, Papa" (Hahn).
- 8.47: Baritone solo—Mr. Will Goudie, "Love, Could I Only Tell" (Capel).
- 8.51: Hawaiian orchestra—Hilo Hawaiian Orchestra, "Song of Hawaii" (Waltz) (Bories and Corbell) (H.M.V. Record EA276).
- 8.55: Vocal quartet—Lyric Quartet, "Lucky Jim" ((Parks).
- 8.58: Waltz—Band, "Grenadier" (Rimmer).
- 9.5: Weather forecast.
- 9.6: Pianoforte solo—Mr. W. Gatheridge (selected).
- 9.13: Vocal quartet—Lyric Quartet, "Where My Caravan Has Rested" (Lohr).
- 9.17: Cornet solo—Bandsman V. McPherson, "Shylock" (Sullivan).
- 9.24: Humour—Miss Rose Carte, "Mrs. Murphy on Honesty" (Pain).
- 9.29: Reverie—Band, "Bells of Sunset" (McKenzie).
Selection—Band, "The Mountain Sylph" (Barnet).
- 9.44: Bass solos—Mr. W. Binet Brown, (a) "Thy Sentinel Am I" (Watson); (b) "Simon the Cellarer" (Hatton).
- 9.51: Concerted with orchestra—(a) "There Lived a King," (b) "In a Contemplative Fashion," from "The Gondoliers" (Sullivan) (H.M.V. Record D1343).
- 9.55: Vocal quartet—Lyric Quartet, "Home, Sweet Home" (Payne, arr. Parks).
- 10.0: March—Band, "Powerful" (Carter).
- 10.5: God Save the King.

3YA, CHRISTCHURCH (306 METRES)—THURSDAY, OCTOBER 25.

- 3 p.m.: Afternoon session—Selected studio items.
- 4.30: Close down.
- 6.0: Children's session conducted by Chuckle and Aunt Pat.
- 7.15: News session.
- 8.0: Chimes.
- 8.1: Rebroadcast of 2YA, Wellington.
- 8.7: Tenor solo followed by soprano solo—Mr. Harold Prescott and Madame Gower-Burns, (a) "Gloria" (Buzzi-Peccia); (b) "Sing, Laugh, Sleep" (Gounod).
- 8.13: Violincello solos—Mr. Harold Beck, (a) "Nina" (Pergolese); (b) "La Cinquantine" (Gabriel-Marie).
- 8.21: Baritone solo—Mr. Clive Hindle, "Elegie" (Massenet), with violoncello obbligato by Mr. Harold Beck).
- 8.25: Waltz—International Concert Orchestra, "Gipsy Love" (Lehar).
- 8.29: Contralto solo—Mrs. Ann Harper, "Dewy Violets" (Scartali).
- 8.33: Instrumental trio—Christchurch Broadcasting Trio, "Minuetto" (Godard).
- 8.40: Soprano and tenor duet—Grand Opera Duo, "A Night in Venice" (Luncantoni).
- 8.44: Grand organ solo—"Prelude and Fugue in G Major" (Bach) (H.M.V. Record D1402).
- 8.52: Memoirs of France—Miss Maiona Juriss, (a) "The French Peasant" (Anon.); (b) "In the Days of La Fayette" (Marlin).
- 8.59: Weather forecast.
- 9.1: Orchestral—"Carmen" Ballet, No. 1 (Bizet), Royal Opera Orchestra (H.M.V. Record C1424).

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- 9.5: Baritone solo—Mr. Clive Hindle, "Even Bravest Hearts," from "Faust" (Gounod).
 9.9: Contralto solo—Mrs. Ann Harper, "Hush-a-bye" (Denza).
 9.13: Shakespearean recital—Miss Maiona Juriss, "The Potion Scene" ("Romeo and Juliet").
 9.18: Baritone with orchestra—Lawrence Tibbett, (a) "Si Pao?" (A word allow me); (b) "Un Nido di Memorie" (A song of tender memories), from "I Pagliacci" (Leoncavallo) (H.M.V. Record DB975).
 9.26: Soprano solos—Madame Gower-Burns, (a) "Chanson de Florian" (Godard); (b) "Il Bacio" (Arditi).
 9.32: Instrumental trios—Christchurch Broadcasting Trio, (a) "Reverie du Soir" (Saint-Saens); (b) "Pierette" (Chaminade).
 9.41: Tenor solo—Mr. Harold Prescott, "Castilian Lament" (Reigo).
 9.45: Rhapsody—Philadelphia Symphony Orchestra, "Hungarian Rhapsody No. 2" (Liszt) (H.M.V. Record D1296).
 10.3: Soprano and tenor duet—Grand Opera Duo, "A Venetian Song" (Tosti).
 10.7: Vocal quartet—Grand Opera Quartet, "Funicule Funicula" (Denza). God Save thee King.

4YA, DUNEDIN (463 METRES)—THURSDAY, OCTOBER 25.

SILENT DAY.

Friday, October 26

1YA AUCKLAND (333 METRES)—FRIDAY, OCTOBER 26.

- 8 p.m.: Afternoon session—selected studio items.
 4.0: Literary selection by the Announcer.
 4.8: Selected studio items.
 4.25: Sports results.
 4.30: Close down.
 6.0: Children's session conducted by Nod and Aunt Jean.
 7.15: News and market reports.
 8.0: Chimes
 8.1: Overture—the Orchestra, "Italians in Algeria" (Rossini).
 8.11: Vocal quartette—Madame Mary Towsey's Quartet, "Fair Shines the Moon To-night" (arr. Birch).
 8.15: Baritone solo—Mr. John Bree, "A Jovial Monk am I" (Audran).
 8.19: Concerted with orchestra—Light Opera Company, "Hit the Deck", Vocal Gems (Youmans) (H.M.V. Record C1433).
 8.23: Recital—Miss D. Knight, "Trees."
 8.26: Soprano solo—Madame Mary Towsey, "The Erl King" (Schubert).
 8.31: Violin solo—Miss I. Bosworth, "Serenata" (Moszkowski).
 8.35: Tenor solo—Mr. J. McDougall, "Coming Home" (Willeby).
 8.39: Hawaiian—Hilo Hawaiian Orchestra, (a) "My Bird of Paradise" (Berlin); (b) "Lou'siana Lullaby" (Zoeller, Bernhard), (H.M.V. Record EA374).
 8.47: Contralto solos—Miss E. Peace, (a) "The Rose" (Johnson); (b) "The River and the Sea" (Johnson).
 8.52: Dramatic Recital—Miss D. Knight and Mr. J. F. Montague (Lady Anne and the Duke of Gloucester)—"Scene from Richard III." (Shakespeare).
 9.4: Vocal trio—Madame Mary Towsey's Trio, "Though the World With Transport" (Wallace).
 9.8: Suite—the Orchestra, "Peer Gynt Suite" (Greig)—1. Morning. 2. Death of Ase. 3. Anitra's Dance. 4. In the Hall of the Mountain King.
 9.19: Soprano and chorus—Miss Nora Treacy, "My Hero" (Strauss).
 9.23: Concerted with orchestra—Light Opera Company, Gems from "The Mikado" (Sullivan) (H.M.V. Record EB5).
 9.30: Baritone solo—Mr. John Bree, "When My Ships Come Sailing Home" (Dorel).
 9.34: Humour—Mr. J. F. Montague, (a) "The Handy Man"; (b) "The Man Who Lost His Head."
 9.43: Contralto solo—Miss E. Peace, "An Old Garden" (Temple).
 9.47: Baritone with orchestra—Lawrence Tibbett, (a) "Si Pao?" (A word allow me); (b) "Un Nido di Memorie" (A song of tender memories), from "I Pagliacci" (H.M.V. Record DB975).
 9.55: Vocal quartette—Madame Mary Towsey's Quartet, "The Blue Bells of Scotland" (arr. Vincent).
 9.59: Musical comedy selection—the Orchestra, "Merrie England" (German). God Save the King.

2YA WELLINGTON (420 METRES)—FRIDAY, OCTOBER 26.

- 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.
 7.0: News session, market reports and sports results.
 7.40: Lecture—Sir Truby King, "Child Welfare Work in the Old Country."
 8.0: Chimes of the G.P.O. Clock.
 8.1: Overture—the Orchestra, "Martha" (Flotow).
 8.11: Soprano solo—Miss Veronica Mackenzie, "Ernani, Ernani Involami" (from "Ernani" (Verdi).
 8.15: Pianoforte solo—Miss Agnes Wright, "Ballade" (Chopin).

- 8.22: Baritone solo—Mr. Claude Moss, "Hear Ye Winds And Waves" (from "Scipio") (Handel).
 8.26: Song suite—the Orchestra, "Schumann's Songs" (Arr. Friml).
 8.37: Contralto solo—Miss Agnes McDavitt, "Know'st Thou the Land (from "Mignon") (Thomas).
 8.41: Violin solos—Heifetz, (a) "Hebrew Melody" (Achron); (b) "Zapateado" (Spanish Dance) (Sarasate) (H.M.V. Record DB1048).
 8.49: Tenor solo—Mr. Edwin Dennis, "Vesta La Giubba" (from "I Pagliacci") (Leoncavallo).
 8.54: Recital—Madame Eugenie Dennis, "Ojistoh" (Johnstone).
 8.59: Duet with male chorus and orchestra, "Miserie" (from "Il Trovatore") (Verdi) (H.M.V. Record D1302).
 9.3: Weather forecast.
 9.4: Literary talk—Mr. J. H. Murdock, "Browning"
 9.19: Instrumental—the Orchestra, (a) "Barcarolle" (Offenbach); (b) Repeat number.
 9.32: Soprano solo—Miss Veronica Mackenzie, "Roberto Tu Che Adoro" (Meyerbeer).
 9.37: Baritone solo—Mr. Claude Moss, "Loving Smile of Sister Kind" (from "Faust") (Gounod).
 9.41: Contralto solo—Miss Agnes McDavitt, "Plaisir D'Amour" (Martini).
 9.45: Ballet suite—the Orchestra, "Ballet Suite" (Romean-Motti).
 1. Minuet,
 2. Musette,
 3. Tambourin.
 9.55: Humour—Madame Eugenie Dennis, "Vun Munts Notice" (Anon).
 10.0: Tenor solo—Mr. Edwin Dennis, "Rose Marie" (Friml).
 10.4: Mixed voices with orchestra, "Gems from the Mikado" (Sullivan) (H.M.V. Record EB5).
 10.12: Musical comedy selection—the Orchestra, "Maid of the Mountains" (Simpson).
 10.22: God Save the King.

3YA, CHRISTCHURCH (306 METRES)—FRIDAY, OCTOBER 26.

- 3.0 p.m.: Afternoon session—selected studio items.
 4.30: Close down.
 6.0: Children's session conducted by Big Brother.
 7.15: News session.
 8.0: Chimes. Presentation of Flotow's Opera "Martha."
 8.1: Rebroadcast of 2YA, Wellington.
 8.7: Vocal quartette, followed by soprano, contralto and bass trio, Melodious Four and Melodious Trio, (a) "O'er Her Cheek" (Flotow), (b) "Fairest Lady" (Flotow).
 8.15: Violin solos—Miss Irene Morris, "Chant Hindou" (Rimsky-Korsakov).
 8.23: Tenor and bass duet—The Yeumen Duo, "Gracious Heaven! What a Bustle" (Flotow).
 8.27: Instrumental trio—Christchurch Broadcasting Trio, "Allegro C Major Trio" (Mozart).
 8.36: Vocal quartette—Melodious Four, "See! See! Note His Looks Admiring" (Flotow).
 8.40: Waltz—International Novelty Quartet, "Cuckoo" (Jonasson), (Zonophone Record EE67).
 8.44: Recital to own piano accompaniment—Miss Lily Kinsella, "Next Week (Alsop).
 8.49: Soprano and tenor duet and soprano solo—Dolce Duo and Miss Frances Hamerton, (a) "From His Eyes Soft Glances Beaming" (Flotow), (b) "The Last Rose of Summer" (Flotow).
 8.55: Wurlitzer organ solo—Jesse Crawford, "La Paloma" (The Dove), (Yradier). (H.M.V. Record EA190).
 8.59: Vocal quartette—Melodious Four, "Oh! What Can Be Her Meaning" (Flotow).
 9.3: Weather forecast.
 9.5: March—Royal Opera Orchestra, "Marche Hongroise" (Berlioz). (H.M.V. Record C1279).
 9.9: Contralto solo—Miss Belle Renaut, "Dart on Dart" (Flotow).
 9.13: Violin solo—Miss Irene Morris, "Pastorale" (Handel).

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- 9.17: Vocal quartette, followed by tenor and bass duet—Melodious Four and Messrs. R. Sumner and T. D. Williams, (a) "Haste We" (Flotow), (b) "None So Rare" (Flotow).
 9.22: Instrumental trios—Christchurch Broadcasting Trio, (a) "Valse" (Rebikow), (b) "Polacca" (Thomas).
 9.28: Recitals—Miss Lily Kinsella, (a) "The Photographer's Charm" (MS), (b) "The Witty Witness" (Curtis).
 9.33: Marimba orchestra—"When It's Love-time in Hawaii" (waltz), (Heagney). (Zonophone Record 3852).
 9.37: Contralto and bass duet, followed by vocal quartette—Miss Belle Renault and Mr. T. D. Williams and Melodious Four, (a) "Yes. But How Bring Him Over" (Flotow), (b) "Tables, Chairs, in Order Setting" (Flotow).
 9.43: Orchestral—Salon Orchestra, "The Glow Worm Idyll" (Lincke). (H.M.V. Record B2169).
 9.47: Bass solos—Mr. T. D. Williams, "Songs From the Fringes of the Fleet" (Elgar).
 9.54: Waltz—Philadelphia Symphony Orchestra, "Blue Danube" (Strauss). (H.M.V. Record ED2).
 9.58: God Save the King.

4YA, DUNEDIN (463 METRES)—FRIDAY, OCTOBER 26.

- 8.0: Town Hall chimes.
 8.1: Gramophone concert.
 8.15: Talk on "Fashions" by Miss Buccleuch of the D.S.A. Ltd.
 8.30: Relay of music from the Savoy.
 8.45: Studio music.
 9.0: Music from the Savoy.
 9.15: Studio music.
 9.25: Sports results to hand.
 9.30: Close down.
 6.0: Town Hall chimes.
 6.1: Children's session conducted by Big Brother Bill.
 7.15: News session.
 8.0: Town Hall chimes.
 8.1: Rhapsody—Philadelphia Symphony Orchestra, "Hungarian Rhapsody No. 2" (Liszt). (H.M.V. Record D1296).
 8.9: Baritone solos—Mr. L. M. Cachemaille, (a) "Brian of Glenaar" (Graham), (b) "When the King Went Forth to War" (Koene-mann).
 8.16: Cornet solo—Mr. George Christie, "Lucille" (Code).
 8.23: Orchestral selection—Victor Salon Orchestra, "Indian Love Call" (from "Rose Marie"), (Friml), (H.M.V. Record EA186).
 8.27: Mezzo-soprano solo—Miss Molly Vickers, "We'd Better Bide a Wee" (Traditional).
 8.31: Recitals—Miss Madge Yates, (a) "Glory of the Garden" (Kipling), (b) "The New Man" (Anon.).
 8.38: Grand organ solo—Edwin Lemare, "Andantino in D Flat" (Lemare). (H.M.V. Record C1455).
 8.42: Baritone solo—Mr. L. M. Cachemaille, "The Sun God" (James).
 8.46: Cornet solos—Mr. George Christie, (a) "Cavalleria Rusticana" (Mas-cagni), (b) "In an Old-Fashioned Town" (Squire).
 8.52: Fox-trot—Dance Orchestra, "Dainty Miss" (Barnes). (H.M.V. Record EA276).
 8.56: Mezzo-soprano solos—Miss Molly Vickers, (a) "At Dawning" (Cad-man), (b) "I'm Longing for the Spring" (Morris).
 9.1: Weather forecast.
 9.3: Recital—Miss Madge Yates, "The Rider at the Gate" (Doyle).
 9.8: Orchestral selections—Light Opera Orchestra, (a) "The Gondoliers" overture (Sullivan), (b) "List and Learn" (concerted with orchestra). (Sullivan). (H.M.V. Record D1334).
 9.16: Comedian—Clarkson Rose, "C.O.N.S.T.A.N.T.I.N.O.P.L.E." (Carltonz). (Zonophone Record 5091).
 9.20: Comedian with orchestra—Frank Crumit, "The Song of the Prune" (Crumit, De Costa). (H.M.V. Record EA366).
 9.24: Relay of dance music from the Savoy.
 10.0: Close down.

Saturday, October 27

1YA AUCKLAND (333 METRES)—SATURDAY, OCTOBER 27.

- 8 p.m.: Afternoon session—selected studio items.
 4.0: Literary selection by the Announcer.
 4.8: Studio items.
 4.25: Sports results to hand.
 4.30: Close down.
 6.0: Children's session conducted by Cinderella.
 7.15: News and market reports.
 7.30: Book review.
 8.0: Chimes.
 8.1: Military band selection—Band of H.M. Goldstream Guards, "H.M.S. Pianoforte" (Sullivan) (H.M.V. Record C1283).
 8.9: Vocal quartette—Lyric Quartet, "Pilgrims' Chorus" (from "Tann-hauser") (Wagner).
 8.13: Instrumental trio—Auckland Trio, "1st. Movement B Flat Trio" (Schubert).
 8.21: Tenor solo—Mr. A. Ripley, "Oft in the Stilly Night" (Old English).
 8.25: Orchestral—International Concert Orchestra, "In a Persian Market" (Ketelbey) (H.M.V. Record EB4).

- 8.29: Vocal duet—Messrs. Richards and Thomas, "Comrades in Arms" (Adam).
 8.33: 'Cello solo—Miss M. Wright, "Chanson Villageoise" (Popper).
 8.37: Vocal quartette—Lyric Quartet, "Fireside Melodies" (MS).
 8.42: Foxtrot with vocal refrain—Nat Shilkret's Orchestra, "Get Out and Get Under the Moon" (Tabais, Jerome and Shay), (H.M.V. Record EA368).
 8.46: Bass solo—Mr. E. Thomas, "Boreas" (Barri).
 8.50: Humour—Mr. A. McElwain, "Settin' a Hen."
 8.55: Instrumental trio—Auckland Trio, "Fantastic Gavotte" (Speaight).
 9.3: Weather forecast.
 9.5: Tenor solo—Mr. H. Richards, "Tell Her" (Kolscherby).
 9.9: Orchestral—International Concert Orchestra, "In a Chinese Temple Garden" (Ketelbey) (H.M.V. Record EB4).
 9.13: Vocal quartette—Lyric Quartet, "Night Winds Gently Flow" (Calkin).
 9.17: Programme of dance music.
 11.0: God Save the King.

2YA, WELLINGTON (420 METRES)—SATURDAY, OCTOBER 27.

- 8 p.m.: Chimes of the G.P.O. clock.
 8.1: Selected gramophone items.
 4.30 and 4.55: Sports results to hand.
 5.0: Close down.
 6.0: Children's session, conducted by Uncle Toby and Aunt Gwen.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Mr. W. M. Dawson (under the auspices of the Wellington Amateur Radio Society)—"Radio Valves."
 8.0: Chimes of the G.P.O. clock.
 8.1: Overture—The Orchestra: (a) "Spirit of America," march (Zamecnik); (b) "Over the Waves" waltz (Rosas).
 8.10: Vocal quartette—Melodie Four: "In Absence" (Abt).
 8.14: Foxtrot—Hilo Hawaiian Orchestra: "My Bird of Paradise" (Berlin) (H.M.V. Record EA 374).
 8.18: Tenor solo—Mr. F. Bryant: "The Road that Leads to You" (Squire).
 8.22: Humour—Mr. Geo. Titchener, selected.
 8.29: Song suite—The Orchestra: "Old Favourites" (arr. Sereby). 1. "Sailing," 2 "Old Oaken Bucket," 3 "Alice, Where Art Thou?" 4 "Listen to the Mocking-bird," 5 "Ben Bolt," 6, "Nancy Lee," 7 "Love's Old Sweet Song," 8 "Cheer, Boys, Cheer."
 8.39: Bass solo—Mr. W. W. Marshall, "The Iceberg" (Sheard).
 8.44: Waltz—Hilo Hawaiian Orchestra: "Lou Siana Lullaby" (Zoeller) (H.M.V. Record EA 374).
 8.48: Vocal quartette—Melodie Four: "Mulligan Musketeers" (Atkinson).
 8.52: Instrumental—The Orchestra, repeat number.
 9.0: Weather forecast.
 9.1: Baritone solo—Mr. R. S. Allwright: "The Old Black Mare" (Squire).
 9.5: Rhapsody—The Orchestra. "Slavonic Rhapsody" No. 3 (Dvorak).
 9.19: Tenor solo—Mr. Sam Duncan: "Oft in the Stilly Night" (Trdtl).
 9.22: Humour—Jno. Henry and Blossom: "Blossom's Film Scenario" (Henry and Reeve) (H.M.V. Record B2384).
 9.30: Entr'acte—The Orchestra: "Minuet" (Padereswski).
 9.35: Vocal duet—Messrs. F. Bryant and R. S. Allwright: "The Well of St. Keyne" (Newton).
 9.39: Humour—Mr. Geo Titchener, selected.
 9.46: Vocal quartette—Melodie Four: "Breeze" (Arr. Holloway).
 9.50: Instrumental—The Orchestra, Dance Novelties.
 10.0: Dance Programme.
 11.0: Close down.

3YA, CHRISTCHURCH (306 METRES)—SATURDAY, OCTOBER 27.

- 6 p.m.: Children's session.
 7.15: News session.
 7.30: Sports results.
 8.0: Chimes.
 8.1: Overture—re-broadcast of 2YA, Wellington (conditions permitting).
 8.6: Plantation chorus—Avonion Minstrels: "But It Is So" (Scott Gatty) Musical monologue—Mr. Frank Olds: "A Mariner's Tale" (M.S.)
 8.12: Accordeon solos and dance orchestra—Mr. George Bennet and the Troubadours: (a) "Ramona" (MS); (b) "Peek A Bo," waltz (MS); (c) "Cielto Londo" (H.M.V. Record EA 349).
 8.20: Tenor solo—Mr. Ernest Rogers: "Nirvana" (Adams).
 8.24: Wurlitzer organ solo—Reginald Foort: "Scion Rosmarin" (Kreisler) (H.M.V. Record B 2664).
 8.28: Mezzo-soprano solos—Mrs. Stephen Parr: "Songs of Soho"—(a) "Berwick Market" (Drummond); (b) "Bells of Soho" (Drummond).
 8.33: Orchestral—Studio Orchestra: "Hungarian March" (Berlioz).
 8.38: Chatterilogue—Mr. L. T. J. Ryan: "Food" (Rutherford).
 8.43: Chorus—Opera company: "Pirates of Penzance" (Sullivan) (Zonophone Record A 332).
 8.47: Male quartette—Avonion Minstrels, "Peter the Cat" (Eastman).
 8.52: Weather forecast.
 8.54: Orchestral—Studio Orchestra: "La Source Ballet" (Delibes).
 9.3: Bass solo—Mr. J. Filer: "The Mermaid and the Tar" (Rose).
 9.7: Accordeon solos and male quartette—Mr. George Bennet and Avonion Minstrels: (a) "Bye-Bye Blackbird" (MS); (b) "Over the Waves," waltz (MS); (c) "Witchery" (Stanley).
 9.16: Comedian—Frank Crumit: "The Song of the Prune" (Crumit and De Costa) (H.M.V. Record EA 366).
 9.20: Mezzo-soprano solos—Mrs. Stephen Parr; (a) "What a Wonderful World it Would Be" (Lohr); (b) "Oh, Hush Thee, My Baby" (Russell).

- 9.25: Orchestral—Studio Orchestra: (a) "Laguna Lullaby" (Hope); (b) "Grand March" (from "Tannhauser"), (Wagner).
 9.33: Popular song—Mr. Doug. Clapperton: "Moonbeam Kiss Her for Me" (Woods).
 9.37: Humorous recital—Mr. L. T. J. Ryan, "Bertram at the Bachelors' Club" (Rutherford).
 9.41: Foxtrot—Shilkret's Band: "Get Out and Get Under the Moon" (Jerome) H.M.V. Record 368.
 9.46: Plantation chorus—Avonion Minstrels: "Our Dinah" (Scott Gatty). Dance programme.
 11.0: Close down.

4YA, DUNEDIN (463 METRES)—SATURDAY, OCTOBER 27.

- 7.15 p.m. News session.
 7.30: Address under the auspices of the Workers' Educational Association.
 8.0: Town Hall chimes.
 8.1: Relay of orchestral music from the Strand Theatre Orchestra, under the direction of Mr. L. D. Austen.
 8.11: Quartet—4YA Harmonists, "Drake's Drum" (Coleridge-Taylor).
 8.14: Flute solo—Mr. J. W. Stewart, "Divertissement" (Beckart).
 8.20: Tenor solo—Mr. C. C. Scott, "My Sweet Repose."
 8.23: Orchestral—Philadelphia Symphony Orchestra, "Invitation to the Waltz" (Webber), H.M.V. record D1285.
 8.31: Recitals—Miss Roberta Williams, (a) "Not Understood" (Bracken); (b) "Knitting" (monologue) (Anon).
 8.36: Soprano solo—Miss Mae Matheson, "Pleading" (Elgar).
 8.39: Instrumental trio (violin, flute and piano), "Slumber Song" (Ersfeldt).
 8.42: Baritone solo—Mr. F. M. Tuohy, "In Sheltered Vale" (Clarke).
 8.45: Violin solos—Mr. A. R. Watson, (a) "Lament from Dido and Aeneas" (Purcell); (b) "Le Cygne" (Saint-Saens).
 8.51: Chorus with orchestra—Light Opera Company, Gems from "Rose Marie" (Friml), H.M.V. record C1205.
 8.55: Mezzo-soprano solo—Miss Mollie Andrews, "The Quail" (Beethoven).
 8.59: Humour—Will Kings, "Bertram Addresses the Tenants" (Rutherford), H.M.V. record C1340.
 9.3: Weather forecast.
 9.5: Relay of orchestral music from the Strand Theatre.
 9.15: Vocal quartets—4YA Harmonists, (a) "Where Art Thou, Beam of Light?" (Bishop); (b) "The Viking's Song" (Coleridge-Taylor).
 9.20: Flute solos—Mr. J. W. Stewart, (a) "Sarabande" (Kronk); (b) "Courante" (Kronk).
 9.25: Tenor solo—Mr. C. C. Scott, "I Know a Lovely Garden" (d'Hardelot).
 9.28: Recital—Miss Roberta Williams, "Keeping a Seat" (Anon).
 9.32: Chorus with orchestra—Light Opera Company, Gems from "No, No, Nanette" (Youmans), H.M.V. record C1205.
 9.36: Soprano solo—Miss Mae Matheson, "Ye Banks and Braes."
 9.39: Instrumental trio—"Chant Du Nord" (Lange).
 9.42: Baritone solo—Mr. F. M. Tuohy, "In the Western Sea" (Morris).
 9.45: Violin solo—Mr. A. R. Watson, "Minuet from the Jupiter Symphony" (Mozart).
 9.49: Mezzo-soprano solo—Miss Molly Andrews, "Invitation to the Dance" (Woodford-Finden).
 9.52: Relay of orchestral music from the Strand Theatre.
 9.59: Wurlitzer organ solo—Reginald Foort, "Valse Fleur" from "Nutcracker Suite" (Tschaikowsky), H.M.V. record C1386.
 10.3: Close down.

Sunday, October 28

1YA AUCKLAND (333 METRES)—SUNDAY, OCTOBER 28.

- 3 p.m.: Afternoon session—selected studio items.
 4.0: Literary selection by the Announcer.
 4.8: Selected studio items.
 4.30: Close down.
 6.0: Children's session conducted by Uncle Leo.
 6.55: Relay of service from St. Andrew's Church—Preacher: Rev. Geo. Budd. Organist: Dr. Neil McDougall.
 8.30: Relay of Auckland Municipal Band concert under the conductorship of Mr. Christopher Smith.
 9.30: God Save the King.

2YA, WELLINGTON (420 METRES)—SUNDAY, OCTOBER 28.

- 3 p.m.: Afternoon session—selected studio items.
 4.30: Close down.
 6.0: Children's Sunday Service, conducted by Uncle Ernest.
 7.0: Relay of evening service from Taranaki Street Methodist Church. Preacher, Rev. Clarence Eaton. Organist and choir-master, Mr. H. Temple White.
 8.15 (approx.): Studio concert.
 Overture—"Rienzi Overture" (Wagner), H.M.V. records ED3 and ED4.
 Soprano solo—Miss Jeanette Briggs, L.A.B., "On Mighty Pens," from "The Creation" (Haydn).
 Grand organ solo—"Andantino" (Lemare), Columbia record 9135.
 Duet—Miss Jeanette Briggs and Mr. Roy Hill, "My Song Shall Be Thy Mercy," from "Hymn of Praise" (Mendelssohn).

Orchestral Suite—"Peer Gynt Suite" (Greig), Part 1.

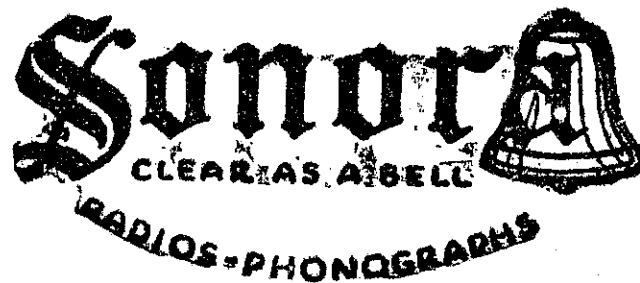
1. "Morning Mood."
 2. "Death of Ase."
 3. "Anitra's Dance."
 4. "In the Hall of the Mountain King" (H.M.V. records C1298/9).
- Tenor solo—Mr. Roy Hill, "How Vain Is Man" (by request), from "Judas Maccabeus" (Handel).
 Cello solos—(a) "The Swan" (Saint-Saens); (b) "Moment Musical" (Schubert), H.M.V. record DA776.
 Duet—Miss Jeanette Briggs and Mr. Roy Hill, "Night Hymn at Sea" (Goring Thomas).
 Military Band—"Poet and Peasant" (Suppe), H.M.V. record 1314.
 Male chorus, "Pilgrims' Chorus" (Wagner), H.M.V. record EA89.
 Soprano solo—Miss Jeanette Briggs, L.A.B., "The Blackbird's Song" (Scott).
 Baritone with orchestra—(a) "Si Puo!" (A word allow me); (b) "Un nido in Memoria" (a song of tender memories), from "I Pagliacci," H.M.V. record DB 975.
 Orchestra—"1812" Overture (Tschaikowsky), H.M.V. records C1280/1.
 Synopsis:—This overture, originally written in celebration of the consecration of the Cathedral of Christ in Moscow, commemorates the withdrawal of Napoleon from Moscow in 1812, when, after he had occupied the Kremlin, the inhabitants fired the city and drove the French general from the city. As originally planned, the overture was to be played out of doors, in the public square in front of the Cathedral, by an orchestra of grand dimensions, reinforced by volleys of artillery and a full military band for the finale. The score of this overture was completed by Tschaikowsky at Kamanka in 1880. This "1812" overture is by far the most widely-known of the Russian composer's music, and a few words will suffice to describe the general plan of its structure and suggest its gorgeous display of orchestral resources. Three easily recognised themes form the principal material of the overture, the first (the one with which it opens with violas and violin-cellos in solemn harmony) being taken from the Russian hymn, "God Preserve Thy People," the second the French "Marseillaise," and the third the Russian National Anthem. The introduction to the overture is slow and solemn, the theme being the Russian hymn mentioned. Then comes the approach and gradual apparent victory of the French (the "Marseillaise") rising higher and ringing clearer, until suddenly everything is overwhelmed in a mighty uproar, out of which the opening theme emerges triumphantly, now most sonorously scored for the full orchestra. A boisterous coda, with the Russian National Anthem in the bass and the chiming of the Cathedral bells, then brings the overture to a crashing close.
 Close down.

3YA, CHRISTCHURCH (306 METRES)—SUNDAY, OCTOBER 28.

- 3 p.m.: Studio gramophone programme (electrically reproduced).
 3.15: Organ recital by Mr. Alec Mill, L.A.B., from the Trinity Congregational Church, Worcester Street.
 3.30: Studio programme.
 3.45: Organ recital—continued.
 4.0: Studio programme.
 4.30: Close down.
 5.30: Children's song service conducted by Uncle David.
 6.15: Hymn chimes from the studio.
 6.30: Relay of evening service from the Trinity Congregational Church Worcester Street. Preacher, Rev. D. Gardner Miller. Organist, Mr. Alec Mill, L.A.B. Musical director, Mr. A. G. Thompson, B.A.
 8.15 (approx.): Musical recital (electrically reproduced) from the studio.
 9.30: Close down.

4YA, DUNEDIN (463 METRES)—SUNDAY, OCTOBER 28.

- 5.30 p.m.: Children's song service conducted by Big Brother Bill.
 6.30: Relay of service from Hanover Street Baptist Church. Preacher, Rev. E. S. Tuckwell, M.A.
 8.0: Relay of band concert (weather conditions permitting).
 9.15: Close down.



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Growing Interest in Overseas Radio

SOME years ago, it was suddenly realised that radio telephony over long distances on short waves was possible. The question which could not be solved, however, was whether reliable communication could be obtained. This was doubted by many, who based their opinion on the fact that contacts which had been established between amateurs in England and U.S.A. were unreliable. The output used for their transmissions, however, was not greater than 1 k.w.

Nevertheless, tests on short waves from 25 to 35 metres had given excellent results for radio telegraphy over large distances, with only slight fading (at least not so often as on long

Re-broadcasts of Short Wave PCJJ.

THE re-broadcasts by 2YA of the outstanding American and Dutch short-wave stations that have been made on recent Saturday afternoons have created a great deal of public interest. Recently P.C.J.J., the well-known station in Holland, was broadcast. The following description of this station will therefore be of interest. In a forthcoming issue we will publish details of a simple and efficient short-wave set which can be made very cheaply.

means of valves, the great difficulty being to avoid reaction between the single stages of the amplifier. This undesired reaction has a very bad influence; it causes unreliable working, and can spoil the transmitter. In many cases, screening of the amplifying

world. During May, 1927, London broadcast programmes were heard in Australia and New Zealand through the medium of the Philips transmitter and re-broadcast by 2BL. Then followed a series of successful test transmissions, including re-broadcasting of famous continental stations. Regular transmissions are still maintained three or four times a week, and PCJJ has become recognised as the most consistent station at present in operation.

RECENTLY the wavelength has been shifted from 30.2 metres to 31.4 metres, and the following description of the equipment used at PCJJ on its former wavelength of 30.2 metres is of value.

The frequency of the transmitter, which has now been transferred to Hilversum, is kept constant by means of a quartz crystal, which has a resonance frequency of 1,656,000 periods per second, which corresponds to a wavelength of approximately 181.06 metres. The transmitting valve, TB 04/10, which is controlled by this crystal, is followed by six amplification stages, one of which is intended to double the frequency, and another to triple this new frequency.

The frequency finally obtained in this way corresponds to a wavelength of about 30.2 metres. In total, the amplifier has seven stages, of which the last two are water-cooled transmitting valves of type TA 12/20,000 k. Modulation takes place in the anode circuit of the last water-cooled amplifying valve. The modulator valves used of

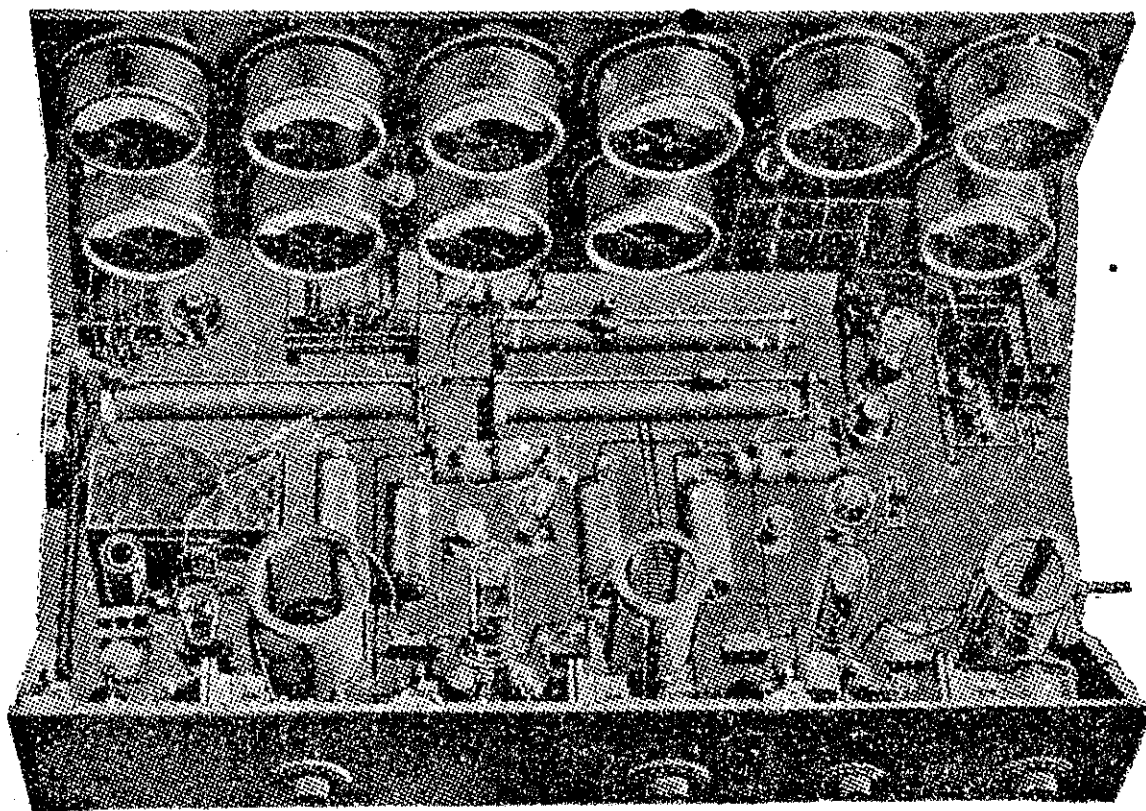
type MA 12/15,000 are also water-cooled, and have a total output of 30 k.w. Preceding these valves are two modulator valves type TB 2/250 air-cooled, with a total output of 400 w.

When examining the various units of the installation in detail, it can be seen that the first unit on the left consists of three stages; the crystal transmitter, with valve TB 04/10, and two amplifiers, equipped with valves type TB 1/50. The middle stage serves at the same time for doubling the frequency. The output obtained amounts to approximately 50 w., the wavelength approximately 90.53 metres. Anode voltage is supplied by an accumulator battery of 500 volts, and the filament is fed by alternating current.

The second group shown below consists of three stages, of which the centre is intended to triple the frequency, with the result that the final wavelength is approximately 30.2 metres. Both first stages contain Philips valves of type TB 2/250, and the third stage is fitted with a water-cooled valve type TA 12/10,000. The high frequency output amounts to approximately 3 k.w., with a wavelength of 30.2 metres. The third group shown contains the last Philips water-cooled amplifying valve TA 12/20,000 k.

The output of the latter valve amounts to approximately 20-25 k.w. With an efficiency of approximately 70 per cent., the power in the aerial is approximately 15 k.w. The aerial current has a value of approximately 8 amps. The output of the water-cooled transmitting valve in the anode circuit is derived from a rectifying installation, which contains six water-cooled rectifying valves, type 1A 12/20,000 with a corresponding smoothing system and speech choke. The aerial consists of a single phosphor-bronze wire connected to the top of a wooden mast in the courtyard of the laboratory.

A general view shows the high frequency, portion of the transmitter, in-



The crystal oscillator and intermediate amplifier at PCJJ.

waves). Moreover, a wavelength of 30 metres enabled communication over the greater part of the day and night. It was assumed that once regular telegraphic communication had been established with a power of $\frac{1}{4}$ to $\frac{1}{2}$ k.w. it would ultimately be possible to transmit telephony on a power of 10 k.w. In principle, it is sufficient for telephony transmission to cause variations of the amplitude of the emitted frequency oscillations, e.g., by variation of the grid voltage or the anode voltage of the transmitting valves by means of a microphone and a suitable amplifier. In the course of experiments it was proved that the voltage variations in their turn cause fluctuations in frequency, same causing frequency modulation, which can be larger than the real modulation by amplitude variation. Distortion caused thus is so great that on short waves especially, speech becomes unintelligible. Therefore, experiments were conducted with a view to maintaining a constant frequency, independent of the voltage.

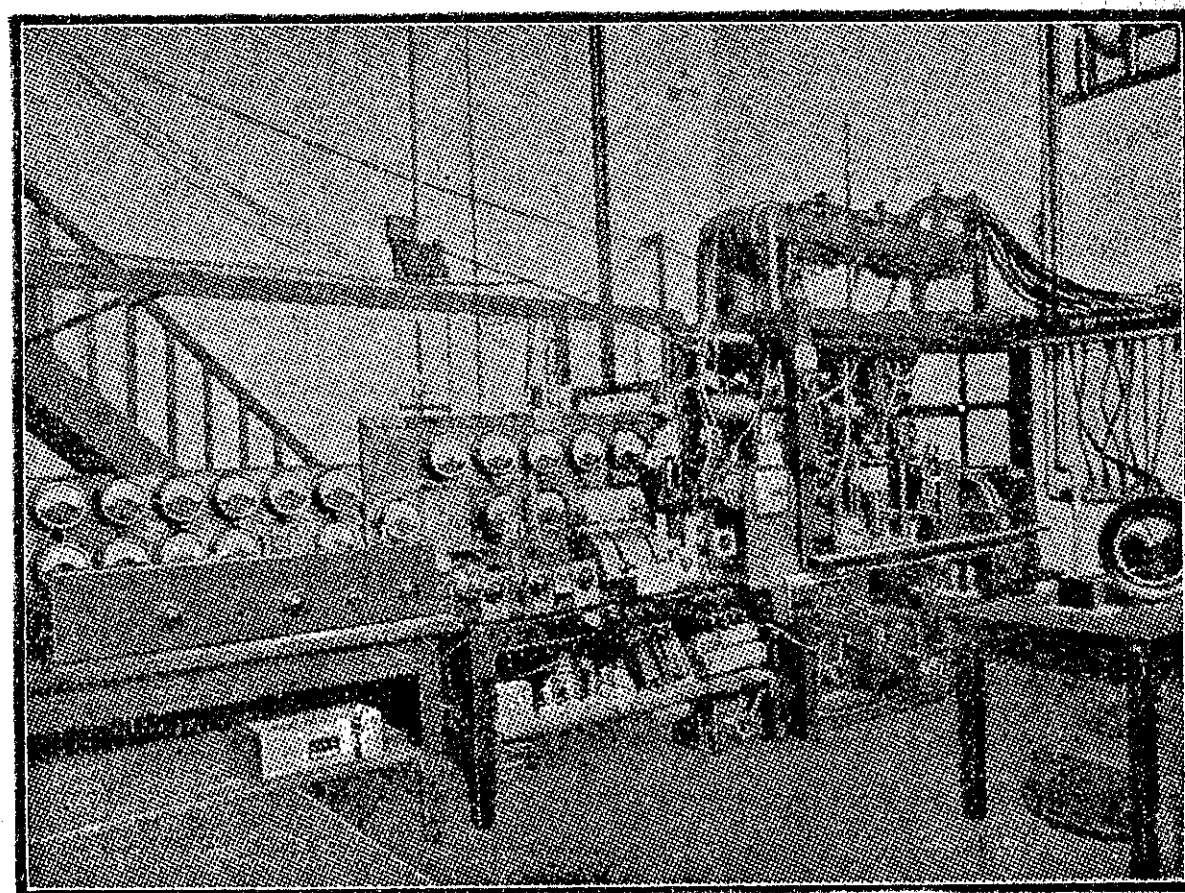
In the U.S.A. a piezo-electrical crystal was used to obtain a constant frequency, especially on short waves. Such a crystal oscillates with a very high and constant frequency, thus acting as a kind of electro-mechanical tuning-fork. In this way, high frequency energy of some watts, but with a very constant frequency, can be obtained. This energy is amplified by

ing stages by surrounding earthed metal screens is insufficient.

A SATISFACTORY solution of the problem is to transform the frequency of the stages following one another. The anode circuit of the transmitting valve is tuned to the first or second harmonic of the grid circuit. The oscillations obtained in the anode circuit under these circumstances are very powerful, while the difference in tuning of the two circuits is large enough to avoid reaction. This method of producing oscillations can be compared to a pendulum kept in motion by a shock after every second or third swing.

On June 25, 1926, the first experiments were made at PCJJ with a transmitter having a small output, and operating on a wavelength of 90.56 metres. This transmitter was the first radio-telephonic short-wave transmitter in Europe controlled by a piezo-electrical crystal. The transmissions of this station, which had an output of 300 w., were received very well throughout the continent. The purity of the transmission left nothing to be desired.

In March, 1927, a new transmitter, operating on a wavelength of 30.2 metres, was completed and opened on April 28, 1927, by Mr. A. F. Philips, governing-director of Philips Lamps and Radio. It was an immediate success, being heard with phenomenal clarity in most every country in the



General view of transmitting equipment.

cluding primary and secondary modulators on the right-hand side. The rubber tubes used for the water-cooling system can be seen. The resistance of the water-column in these tubes is so high that the electrical loss can be completely ignored. As the output for the excitation of the first amplifying stage amounts to less than 1 w., measures must be taken to avoid any reaction of the following stages, and especially of the last stage on the first.

Considerable difficulties can be caused by a reaction of only 1/20,000. Ser-

ious difficulties can also be caused by parasitic oscillations in ultra-high frequencies. These oscillations are mostly due to the fact that certain of the connecting wires form an oscillation circuit with the internal capacity of the valves. This evil is to be feared, especially when several valves are connected in parallel. The dimensions of all connecting wires are kept as small as possible, which, of course, leads to a compact installation. This is in contradiction to the electrical requirements to which the apparatus must come up. Condensers especially cause difficulties of this kind.

the wave-trap to see what would happen, and to my surprise 2YA came in louder than ever on the speaker. Would you please tell me what happened, as wave-traps are supposed to decrease the volume. It is now 17 minutes past ten and the music is coming in as loud as I receive it from 1YA. Your announcer has just told us the time we also heard you re-broadcast 4YA, Dunedin and 2BL, Sydney. "Lonesome in the Moonlight" is coming in now as loud as a brass band, this will do me. No fading of 2YA, as I am led to believe.—A. W. Powell (Auckland).

[A wave-trap should not increase the volume if the set is without fault, but it appears as if the aerial coil is too small and full volume is being lost. The wave-trap coil, being larger, supplied the deficiency, bringing the volume to what it should be.—Ed.]

This Jazz!

AT present I am awaiting 2YA's announcement as to whether the Southern Cross will leave to-morrow morning. It is certainly grand the way the Broadcasting Company have kept radio enthusiasts informed regarding the flight; but, while there is a long wait, would it not be possible to put on some music instead of jazz rubbish? A jazz record now and again can be tolerated, but it is awful to wait half an hour and more listening to the thump, thump of a jazz band, accompanied by a singer (?) with a voice like a starved tom-cat. Surely it would be possible to mix the items a little. If there is trouble with the copyright of better music, then it is high time something was done to break the power of the Australian Performing Rights Association, or whatever the name is. Hope you take this as a friendly suggestion. I've growled more than I intended because I'm feeling blue after all that jazz. While we are about it, might I suggest also that during these broadcasts the name of the item be announced, as is done during the regular programme. (The record just put on is not jazz, thank goodness, but an announcement of the name would have made it more interesting.) Thanking the company for the good service rendered in connection with the trans-Tasman flight.—K. L. Collinson (Palmerston North).

Mystery Stations.

WOULD you be so kind as to identify the following stations for me? The first one is nearly on 2FC's wavelength, about 441.8 metres, comes in fairly loud, but with terrible fading. The talk was strong, not Japanese. Another one on 450 metres, which also comes in fairly strange, the talk there being foreign. There is another one on about 384.1 metres between JOHK and 4QG. I get him about 8 o'clock some nights. The other night I put a coil from my aerial to my machine and got a station calling out: "Hullo, hullo, —, station 187, wavelength 788 metres," or 88—. I could not catch which; this was about 9.30 p.m. Hoping you will be able to identify the above stations for me.—M. Wiffen, Blenheim.

[There are about four American stations operating on 441.8 metres. KGO, California, on 384.4 metres, has been heard in New Zealand. The Japanese station JOGK (Kumamoto) can be heard on 380 metres, while 1LFRG (California) on 454.3 metres, is also

heard. Have any readers heard any of these "mystery" stations?—Ed.]

The Racing Ban.

I SEE by the last issue of the ever-popular "Record" (in the Auckland notes) that 1YA are going to broadcast running descriptions of the next races to be held in the Queen City. If this is a fact it will be hailed with great delight by thousands of listeners throughout New Zealand. All that listeners-in wish, is that all the major race meetings will be broadcast in future. Just watch the licenses go up, if this happens! Good luck to the Radio Broadcasting Company. May its shadow never grow whiskers. By the way, 4YA has been coming in very strongly here these days, and also 1YA about 9 to 10 p.m.—A. C. C.

[We do not wish any misunderstanding. We understand the position to be that where conditions are favourable the fullest service possible will be given and in other cases the results and summary with as little delay as possible. The position is not radically different from what it was, but for the more important meetings special efforts will be made.—Ed.]

KGER Logged.

I SEE by last issue of the "Record" a listener at Masterton, Mr. Guy C. Holmes, logging KGER. I logged KGER on June 6 (on consulting my log), and received a card and a letter from the proprietors of KGER on August 6, as verification of reception, saying how pleased they were to hear a report so far away as New Zealand. KGER is owned by Mr. C. Merwin. Dobyns Footwear Buildings. The wave of Long Beach, California, power 100 watts, 215.7 metres. My list of Yanks to date is seventeen. I would like to correspond with Mr. Holmes to exchange views.—S. Ellis, Okato.

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.

ANSWERS TO CORRESPONDENTS.

G. Smith (Auckland).—Messrs. Harringtons, Limited (Wellington), retail cone speaker units at 30s.

Changes in Programmes.

MAY I endorse the remarks re changes in programme made by "P. H. Warren" in last week's "Record." I also was very disappointed at the substitution of other music for the selections from Sullivan's "Ruddigore," to which a number of us had been specially looking forward. On Saturday, September 22, however, a delightful scene from "Ruddigore" was broadcast from station 1YA by Mrs. Daisy Basham and Mr. Arthur Briggs. This

was made specially interesting by the inclusion of Gilbert's dialogue, which was charmingly given. May I request that Mrs. Basham's duo be requested to repeat this satisfying number, which I know delighted many people.—"Listener-in."

2ZA, Wanganui.

IN your last issue I notice Mr. S. Ellis making inquiries concerning a station on 500 metres. This is 2ZA Wanganui, and, according to recent correspondence, is owned and operated by D. A. Morrison and Co., electrical engineers, Wanganui, power 20 watts, wavelength 500 metres, hours of transmission Wednesdays 8 to 10 p.m. (approximately), Sundays 2.30 to 4.30 p.m. Greetings. S. Ellis.—N. C. Winstanley

Too Much Gramophone.

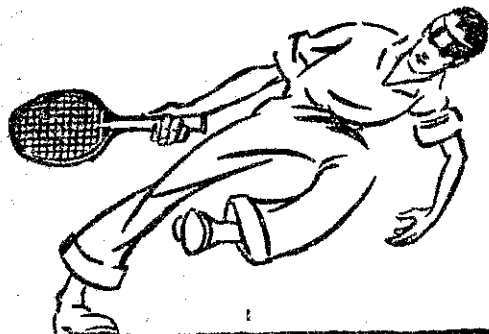
MAY I use a small space in your paper re the programmes 2YA is giving lately. We hear nothing else but gramophone records all the time—afternoons, also for evening sessions. I don't think the Broadcasting Company is acting fair.—Fair Play (Wellington).

A New Year Suggestion.

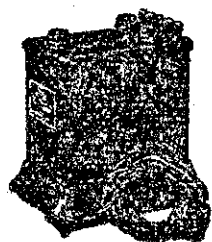
I AM writing this letter for the purpose of making a suggestion which may or may not be feasible. Since New Zealand will be the part of the Empire that will be the first to usher in the New Year, it would be rather unique if the broadcasting of the festivities, say at Christchurch, could be rebroadcast by short-wave, possibly through the medium of 2MB, Sydney, to be picked up by 5SW, and then rebroadcast by 2LO, London. This sort of thing helps to cement the Empire, bring home to the general public the wonders of wireless, besides giving a certain amount of prominence to New Zealand.—Philip Williamson (Whangamata).

Wave Traps.

I AM using a three-valve all-wave set, and to-night I connected a wave-trap between the aerial and set. The coil of wave-trap has 60 turns of wire tapped every fifteenth turn. I plugged in on the first tap of the wave-trap coil. I then tuned in 1YA on the set at full strength. Then with the wave-trap I tuned 1YA out, or I might say I cut them out. Then I tuned in 2YA on the set at fairly good speaker strength. I altered the condenser on



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Notes on the Loudspeaker

"By Megohm"

BECAUSE a speaker is of a particular type is no guarantee that the speaker is a good one. Design plays a great part in a speaker's reproduction of broadcast, and a badly-designed moving-coil speaker may compare very badly with good makes of older type.

For best operation by a good receiver the speaker should be fed through an output filter or transformer, preferably the former. The merits of loud-speakers can only be properly judged by being connected to a good receiver. Care must then be taken not to overload the detector. A throw-over switch forms a handy means of comparing two speakers, as several changes may be rapidly made during one item. Notice on speech the sounds of f, s, b, v, p, and th. If these can be clearly distinguished, the speaker is good on high frequencies. Low notes of music are a test for the lower audio frequencies.

THE more of a musician a person is, the more readily will the lower notes be recognised and separated from delusive overtones. Low notes, if properly reproduced, are full and rich, just as in the original, from which there should be little departure. A really good radio outfit needs few apologies for the quality of its output as compared to the original.

Balance of tone—that is, equal amplification of both high and low notes—is aimed at in the construction of receivers, but not always realised by a long way. As a rule the tendency at the present time is towards exaggeration or over-amplification of the low notes, and this usually results in a weakening of the high notes and sometimes complete loss of the very high audio frequencies. Resistance and transformer couplings have this tendency to high-note loss when the low notes are emphasised. A double-im-

pedance amplifier gives the most even amplification through the entire musical scale, with least tendency to distortion. This is just by the way, to show that in judging a loud-speaker the tendencies of the receiver must be taken into account.

IT is an interesting experiment, given a receiver that has fairly even amplification throughout, to test various speakers and note the great differences in reproduction under the same circumstances. Undoubtedly the double-roll speaker recently described in this column shows up to advantage in equal amplification when it is available to be reproduced. A medium horn speaker gives quite a different version of the music. It loses all notes below a medium frequency, and, reproducing a band item, does not give the separateness of instruments that is apparent with a good cone type. This confusion of sounds is a fault in many horn-type speakers, especially the smaller sizes. Large-sized horn speakers vary considerably in the range of notes they will reproduce, and, whilst some will descend well down in the scale, some will fall off at almost the same frequencies as their smaller brethren. Some makes of horn speaker fall off badly at both high and low notes, only satisfactorily reproducing the centre portion of the musical scale.

Purchasing a Loud-Speaker.

SELECTING a speaker is not a simple matter for a person new to the ranks of radio. To hear a number of speakers demonstrated one after the other, and an immediate decision of choice to be made, is not the method that will secure a beginner the best speaker for his requirements. By far the safest plan is to carefully listen to several, pick out two or three, and take them home for a leisurely test under

the actual conditions under which one of them is to be used.

It does not pay to give too low a price for a speaker, and as far as possible the purchase should be made on quality of reproduction rather than on price. If you buy a high-grade speaker it will give satisfaction for a couple of years or perhaps longer—two years is a long time in radio matters. A mediocre speaker will not charm the ear very long, and perhaps in three months you will be yearning for something better, as your musical ear is being developed. It is easy to figure out the difference between the cost of one high-grade speaker and the cost of two—a "half-pie" and a "top-notcher." It is a tempting proposition to save a pound on a purchase—we all do it at times, not only in radio, but in other lines, but experience shows us that sorrow and further expense frequently follow very rapidly upon such action.

Cone Speakers.

THE cone-type speaker is the popular one at the present time; and great improvements have been made in these speakers of late, ensuring a reproduction that is high-class in every way. Balanced armatures and double-acting or "push-pull" movements of varied design have contributed towards improving the range in an upward direction. For few cone speakers have tended to suppress the lower portion of the scale, except where the design has, in a few instances, been particularly bad. Certain well-known makes that have made their name may be relied upon for satisfactory reproduction, and choice after test of a couple of such will leave little to be desired.

Too much emphasis cannot be laid upon the fact that the speaker is very frequently blamed for defects that exist in the receiver, so that great care should be taken to ensure that not only is a good speaker in use, but that the receiver is giving the best possible from a quality point of view, and tests should be carried out on the local station.

Choke Filter or Transformer.

WHEN a super power-valve is used in the last audio stage, as mentioned above, a filter is necessary in order that the heavy B current in the plate circuit of the last valve may not traverse the speaker windings, tending to overloading and magnetic saturation, thereby spoiling quality of reproduction. The method of employing a choke-coil and a 2 mfd. condenser as an output filter has frequently been dealt with in this column, and forms the most popular and adaptable method. The alternative system is to employ an output transformer, similar to an audio transformer, but with a 1 to 1 ratio winding. The primary of this transformer is connected in the plate circuit of the last valve, and its secondary terminals form the output and connect to the speaker.

In either case the direct B current returns to the battery without traversing the speaker windings, but the speaker is actuated by the alternating-current voltage, which is a demodulated

form of the original signal. When either type of filter is in use there is no need to worry about correct polarity of speaker leads—they can be connected irrespective of positive and negative markings.

The choke-condenser type suits any conditions, but when an output transformer is used, the best effect is obtained when the impedance of the transformer primary is approximately double the plate resistance of the valve.

Exponential Horns.

A NUMBER of exponential horn speakers are on the market, usually with the horn folded up in order to economise space. There is a tendency in some of these to overdo the low notes at the expense of the high.

For the home constructor the five or six-foot square exponential horn offers an inviting field, and when such is carefully made of wall-board, results are highly satisfactory. The unit of an ordinary horn speaker will usually give greatly improved performance when fitted to one of these horns, the low notes being then well in evidence, the high being at the same time preserved.

The velocity of sound in air is 1120 feet per second, so that the wavelength in feet corresponding to any particular frequency may be found by dividing 1120 by the frequency. The diameter of the (round) horn in feet must then be made equal to this wavelength divided by 4.

When the horn is made square, the area of the mouth should be made equal to that of the equivalent round horn. The taper of the horn is to be calculated upon the recognised exponential system.

Balsa Wood Speakers.

IN America a rather popular type of speaker is made with a square diaphragm of Balsa wood, which is extremely light. The diaphragm is large, of square shape, often fashioned as a fireplace screen and decorated. By this construction a high ratio of stiffness to mass is obtained, slats radiating from the centre to consolidate the whole.

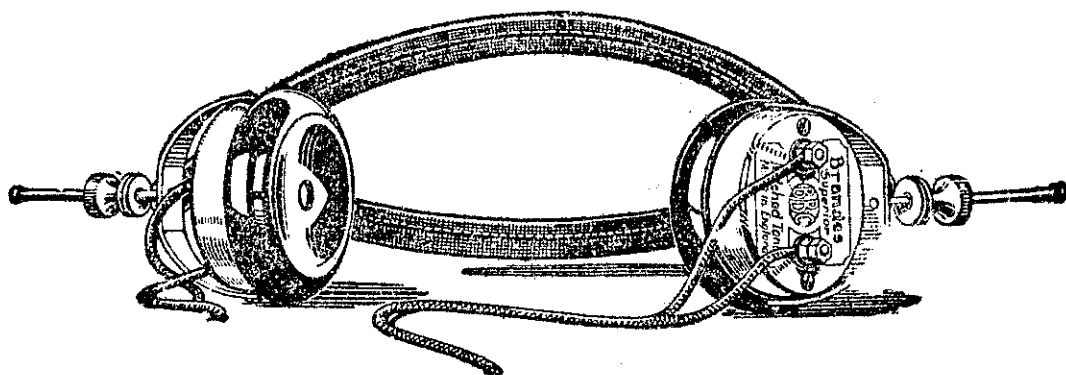
Coil-Driven Speakers.

THE coil-driven or dynamic loud-speaker has already become very popular in England and America, but is not expected to very rapidly displace the many excellent speakers already on the market. To obtain heavy volume from this type of speaker a special direct-current supply must be fed to energise the field-magnet, which constitutes an additional running expense, though where electric mains are available the cost is certainly small. Some patterns are made with permanent magnets, but will not yield volume equal to those employing an electro-magnet.

Coil-driven speakers lend themselves well to home construction when the requisite machined castings can be purchased finished ready for use. The field magnet may be excited by direct current of any voltage from 6 up to 230 or more, the winding being suited to the particular supply available,

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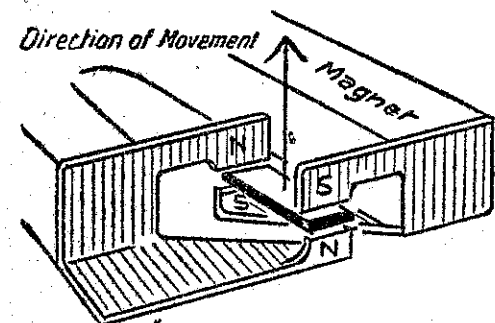
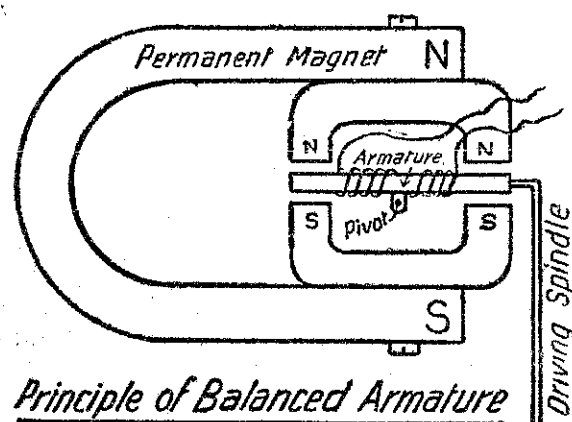
Condenser Combinations

EXPERIMENTERS who wish to obtain special capacities of fixed condensers by combining two of standard capacity will find the following table useful. Capacities are all expressed in microfarads. The first two columns contain the values of the two condensers to be combined, and the other two columns give the resultant capacity of the combination.

Separate Capacities		Combination	
		Series	Parallel
.0001 and .00025		.000071	.00035
.0001 and .0005		.000083	.0006
.0001 and .001		.000093	.0011
.0001 and .002		.000095	.0021
.0001 and .005		.000098	.0051
.0001 and .006		.000098	.0061
.00025 and .0005		.00016	.00075
.00025 and .001		.0002	.00125
.00025 and .002		.00022	.00225
.00025 and .005		.00023	.00525
.00025 and .006		.00024	.00625
.0005 and .001		.00033	.0015
.0005 and .002		.0004	.0025
.0005 and .005		.00045	.0055
.0005 and .006		.00046	.0065
.001 and .002		.00066	.003
.001 and .005		.00083	.006
.001 and .006		.00085	.007
.002 and .005		.0014	.007
.002 and .006		.0015	.008
.005 and .006		.0027	.011

Balanced-Armature Speaker Movement

THE principle of the balanced-armature loud-speaker movement is shown in the accompanying diagram (a). The usual permanent-magnet is provided with a double-ended pole-piece on each extremity, thus giving an ad-



acent north and south pole opposite each end of the armature. The armature acts as the core of a small coil carrying the audio-frequency current, and is pivoted as indicated. The driving spindle to connect to the diaphragm is attached to one end of the armature.

The above principle has been simplified for commercial reproduction in some units as shown in diagram B, which illustrates the balanced-armature principle as embodied in the

"Blue Spot" balanced unit No. 66, and in the "Anchor" driving unit, both of which are stocked by the Roger Importing Co., Ltd., of 159 Manchester Street, Christchurch. On looking at diagram B it will be noticed that there are two extension pole-pieces on each pole of the permanent magnet, but arranged differently to the original scheme in order to eliminate the necessity for pivoting the armature, and by this means to secure parallel movement of it. The coil encircling the armature is omitted for the sake of clearness.

The Roger Co. stocks a large number of radio lines, including loud-speaker kits and complete speakers, receivers, valves, headphones, crystals, etc.

That Extra R.F. Stage! Another Success.

UNDER the date of October 3, a Nelson constructor sent the following enthusiastic letter which we print practically in full.

Dear "Megohm"—Just a line to congratulate you on the design of B.D. Shielded set. I have constructed this receiver and find it to be remarkably sensitive. Allow me to say that I have not stuck to all the features embodied in it. For instance I am using condenser control for reaction which I consider much better than the ordinary tickler. This does not de-tune the set at all. Secondly I found that it was very difficult to neutralise the R.F. by the ordinary neutrodyne way, I mean the tapped secondary. It worked all right on the first stages but not a hope on the second. I therefore tried the split primary method and found that this was simplicity itself. It neutralised perfectly. Although I quite appreciate your idea of making a separate amplifier, I thought I would like this section embodied in the set so allowed extra space to take it and also the reaction condenser. The only other alteration I have made is to cut out the filament rheostat on the detector and put in a fixed filament ballast. I don't think these alterations have made the set any less efficient, perhaps more so as I cannot imagine a five valve receiver being more efficient. Believe me, I think it is simply wonderful. 2FC comes in on the speaker at Mid-day. To-day, I had the Sydney G.P.O. chimes striking twelve at quite good strength. I completed the set last Thursday and on Friday and Saturday nights, I had KEX Portland, Cal. that loud on my amplier A.R. 19, that it could be heard all over the house. Yesterday at 1.30 p.m., 2FC came in so loud that my wife came in and said: "What station is that?" "2FC," I answered. "Oh, really, I could hear it out in the kitchen and thought it was 2YA opening up to tell us the 'Southern Cross' was leaving." This sounds a bit tall but believe me it is "dinkum." It is doing what a well-known "six" won't, though they have a big reputation for pulling distance. In conclusion, I must thank you very sincerely for all this. I have built several BD's but have never made or seen a five-valver like this. Four of the valves I am using are 201A Radiotrons which I have been using for the last three years. The detector is a PM6. Several of the fans about here show great surprise at the results and some others, on being told about it won't believe. I omitted to say that 3YA is very difficult to pick up

here on 5 valves during the day, but I can now get it on the speaker, O.K. All the A class "Aussies" and all N.Z.'s come in with great volume at night, no reaction and filaments cut down. I don't think there is a station in Aussie or N.Z. that I can't get on the speaker. The Japs also, KGO, KEX, and a couple of others. I haven't heard the call of yet. I could go on praising this set all night but I suppose you have had enough by now.

End of Double-Ended Screen-Grid Valve.

THE Marconi and Osram type of screen-grid valve is to undergo a change. In future they will be made on the same plan as the UX222, with the ordinary four pins in the base and the fifth or control grid connection on top of the bulb. A copper "lid" is to be supplied that will completely screen the valve externally. Standardisation and facility in manufacture are the reasons bringing about the decision to make the change.

Browning-Drake Improvement.

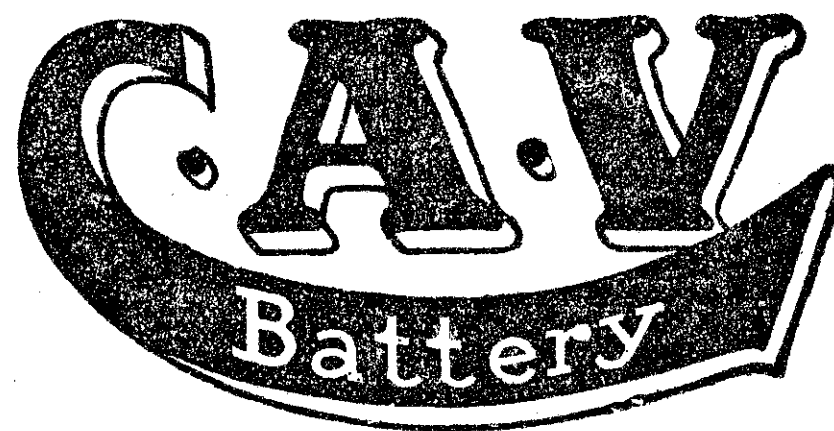
SEVERAL correspondents have enquired as to a method of altering the connections of the Browning-Drake r.f. primary coils. This change was made in the 1928 Browning-Drake, and consists in placing in the r.f. plate B positive lead a radio choke instead of the primary coil. The primary is then connected to the plate with a .5 mfd. condenser in series, so that the other end of the primary is earthed to A negative instead of being connected to B positive. Improved results may be looked for with this change, either in one or two r.f. stages.

Eliminator Rectifying Tubes.

THE Cc-Co type D.G. full-wave rectifying tube is similar in action to the Raytheon, without filament. It can be used on outputs up to 300 volts, at which it puts out 85 milliamps. The tube sells at 24s. by Bond and Bond, Commerce Street, Auckland. This information has been forwarded by a correspondent.

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Index to Back Numbers.

BELOW is the promised index to the construction page during the time from the commencement of the "Record" to the last issue. A number of readers have asked for such an index to be published, and it will no doubt be of great assistance to many.

Articles are all listed by the dates on which they appeared, as dates are easy to find, being printed on every page, whilst the serial number is only on the front page. Some of the dates between July and September are duplicated, but they are all 1927 unless '28 appears in parenthesis after the date.

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S625 as R.F., March 16.
Screen-grid for Short-wave R.F., March 16.
Screen-grid for 1st Stage B-D., April 20.
Crystal, Loose-coupled, May 4.

COILS.

Solenoid Wave-lengths, Sept. 9.
Making Spider-Web, Feb. 17.

CONDENSERS.

Mansbridge, Aug. 19.
By-pass, etc., Sept. 2.

Making Fixed, Dec. 9.
In Power Supply, July 6.

CRYSTAL.

Long-distance Hints, Aug. 5.
Simple Receiver, Aug. 12.
"Record" Receiver, Aug. 19.
One-stage Amplifier, Aug. 26.
"R.R." Pocket Set, Dec. 16.
General Construction, Dec. 30.
"R.R." Selective, Jan. 6, 13.
Variometer Set, Jan. 20.
Two-stage Amplifier, Jan. 27.
Spider-coil Tuned, Feb. 24.
Loose-coupled Circuits, May 4.
Composition and Properties, June 22.
With One Amplifier, July 6.
"Colvern" Receiver, July 20, ('28).
With Battery Potential, Aug. 24 ('28).

EARTH.

Connection Hints, July 22.
Counterpoise, Jan. 13.
Buried Type, Sept. 28 ('28).

ELIMINATOR.

Full-wave B, Oct. 14, 21, 28, Nov. 4, 11, 18.
Condensers, Dec. 2.
For D.C. Mains, Feb. 24.
B. For Small Sets, March 23, 30.
B. Controlling Switch, Simple, March 23.
Action of B Explained, April 27.
Regulator Tube, July 27 ('28).
A Eliminators, Oct. 5, ('28).
Regulator Tube, July 27 ('28).
Interference, Dealing With, July 27 ('28).

GRID BIAS.

General, March 23.
Without Battery, June 1.

LOUD-SPEAKER.

Choosing, Sept. 2.
16-foot, Jan. 20.
Linen-Diaphragm, July 13, Aug. 17 ('28).
Home-built Cone Unit, Aug. 10 ('28).
Moving-coil Explained, Aug. 31 ('28).
Double-roll, Constructing, Sept. 7 ('28).
Improving Small Cone, Sept. 21 ('28).

MISCELLANEOUS.

Polish and Stain, Nov. 25; Oak Finish, Aug. 31 ('28).
Wave-Trap, Jan. 6, 13.
R.F. Choke, Feb. 17, Sept. 14 ('28).
Reaction Explained, May 4.
Wire Table, Mar. 16.
Discovering Polarity, June 8.
Frequency Test Notes, Aug. 10 ('28), Aug. 17 ('28); Aug. 24 ('28).
Backlash (reaction), Aug. 17 ('28).
Phasatrol, Aug. 31 ('28).
Volume Control, Methods of, Aug. 31 ('28).
R.F. Amplification and Selectivity, Sept. 14 ('28).
Soldering Hints, July 29, Nov. 25, July 27 ('28).

REPRODUCTION.

Seeking Pure, Oct. 21, 28, Jan. 20.
Distorted, April 20.

SHORT-WAVE.

"Record" 3v. Receiver, Dec. 9, 16.
"Record" Adapter, Dec. 23.
Screen-Grid Booster, June 29.

VALVES.

Choosing Suitable, Feb. 24.
Screen-grid Action Explained, Mar. 9.
S625 and Circuit, March 16.
Filament Fuses, June 15.

Tips and Jottings

Variable Condenser Capacities.

IT is impossible to apply any rule of counting plates to give the capacity of any variable condenser, as the spacing between plates is a governing factor—reduced spacing gives increased capacity. There is, however, a standard spacing that is used at the present time in most factory-made condensers, so that the following total number of plates will give a fair indication of the capacity:—About 23 plates, .0005; 17 plates, .00035; 11 plates, .00025; 5 plates, .0001. These figures refer to the Hammarlund and other makes of condensers.

X-ray Valves.

IT is not perhaps very generally known that Philips Lamps, Ltd., do a large business in X-ray valves in addition to the rapidly-growing volume of radio products. Business in the latter especially is increasing by leaps and bounds, necessitating two extensive increases in office and warehouse accommodation at the Wellington house during the past few months. A low-powered experimental short-wave station is to be erected in Wellington in order to conduct the tests in co-operation with headquarters at the other side of the globe.

Speaker Cut Out by Telephone.

WHERE the loud-speaker and telephone are situated together it is necessary to stop the speaker whilst the telephone is being used. As the telephone instrument may not be tampered with in any way, this cut-out may not be made automatic, but the next best thing is to break one of the speaker leads, run an extension wire from each side of the break up to the telephone, where a small switch is inserted between the two leads and screwed to the wall. Anybody using the 'phone can then conveniently switch off during the conversation loud-speakers in other rooms continuing without interruption.

Built-in Loud Speakers.

IT is quite an easy matter to build a loud-speaker into a cabinet below the receiver, and it has often been done quite successfully as regards reception. But it is a wise precaution to first know the capabilities of the receiver with regard to microphonic susceptibility. A receiver fitted with microphonic valves might give endless trouble when built above a loud speaker, and for this reason experiments should be first conducted to determine the suitability of the outfit for such arrangement.

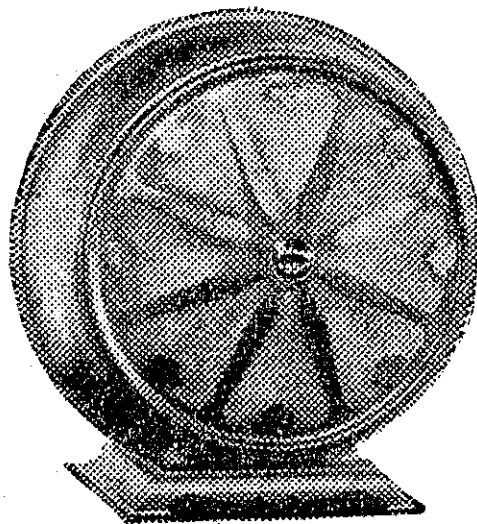
The Double-Roll Speaker.

AN Otago constructor says:—"I have constructed the double-roll speaker and have had it running for week, and its reproduction of both high and low notes, together with its sensitivity to weak signals, has been a revelation; it is certainly all you claimed for it and more. It easily outclasses both of the horn speakers I have here. It was made exactly to your specifications, purchasing the proper cone paper and an omniphon unit."

Heating Last Filament with A.C. June 29.

"Condor" Characteristics, Aug. 1 ('28).

Before you decide The . . . BALDWIN "VITAPHONE"



The Baldwin "Vitaphone" is especially attractive, sensitive, and powerful and is an entirely new and advanced principle of design and construction, employing a fully shielded case and electrically filtered reproduction.

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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."

SHUNT.—See "Parallel."

SIGNAL-STRENGTH.—Sound-volume of the received signals. For exact laboratory purposes measurement of signal-strength is often made of the actual current induced in the receiving aerial in order to gauge the sensitiveness of the receiver.

"SILENT POINT."—When in searching for weak, distant signals, the reaction coupling is increased until the valve oscillates, the carrier wave of the distant transmission is heterodyned by the oscillations of the receiving valve and the "beat" is heard as a rising or falling whistle as the tuning is varied. When the receiver and the oscillations of the receiving valves are exactly tuned to the frequency of the carrier wave, there is no beat note this is known as the "silent-point." Silence of the beat-note, however, is not a sign that the receiver is not oscillating, but only that its oscillations are in phase with those of the transmission. Under no circumstances should these conditions be allowed to persist in the receiver.

SPARK TRANSMISSION.—The earliest form of wireless communication is rapidly being superseded by continuous wave apparatus. Sometimes known as damped wave transmission.

SINGLE-VALVE.—In a single-valve set, the valve has simultaneously to amplify and rectify; and, if it be used to receive continuous wave Morse, to oscillate as well. Such a set is little better than a crystal receiver unless reaction is employed, when careful handling is necessary to avoid causing interference. If one valve only is used it is better to use a crystal in conjunction or to wire it up with a crystal as rectifier (detector), and a low-frequency transformer feeding back the rectified energy to the grid of the valve which thus operates as a dual amplifier simultaneously at high and low frequency. Single valve receivers are most unsatisfactory pieces of apparatus for broadcast reception, both from the point of view of the user and his neighbours.

SLIDER.—A sliding contact by which the number of turns of a tuning coil in use may be varied.

"SOFT" VALVE.—A valve having small gas content or low degree of vacuum, useful for rectification (detection), but of little value for amplification.

SOLENOID.—A type of electro-magnet in which the armature is attracted into the central space in the interior of the windings, when current is passed through the coil. Used for operating mechanical contrivances from a distance by electrical means.

SPADE-END.—A small forked piece of metal to which the end of a wire is clipped or soldered; the fork slips between the nuts of pillar type terminals and thus makes good firm contact.

SPAGHETTI.—The term Spaghetti, as used in wireless, is applied to an insulated sleeving for the purpose of covering busbar wire. Spaghetti has a very high resistance, and is easily threaded on to the busbar wire for wiring the set. Made in four different colours, this method of wiring is very efficient, neat, and rigid, besides making it a simple matter to trace any particular lead.

SPEED OF RADIO SIGNALS.—The waves sent out from a broadcast station maintain a constant speed of about 186,200 miles per second, on any wavelength. This is the same speed as that of light. Frequency in cycles per second divided into this figure in metres (300,000,000), gives the wavelength in metres. Conversely, the wavelength in metres divided into 300 million gives the frequency in cycles. See "Wavelength."

STATION.—Stationary element of a vario-meter, vario-coupler, or the stationary plates of a condenser.

STATIC.—An alternative term for "atmospheric" disturbance. Natural or atmospheric static is a source of considerable interference with long-distance reception at times. Up to the present there is no known method of reducing interference from static without a corresponding reduction in the signal strength of reception, except by the use of elaborate and most costly appliances.

"STRAIGHT" CIRCUIT.—The colloquial term for a straightforward circuit in which each valve is called upon to perform a single function only, and in which reaction is not pushed past the verge of oscillation, as in "super-regenerative" circuits.

SUPER-HETERODYNE, SUPER-SONI HETERODYNE (usual abbreviation Super-Het).—A method of reception whereby signals are combined with local oscillations of a definite frequency deliberately set up (see "Heterodyne") are detected, and the third frequency set up on a long wavelength of usually 4000 metres is amplified and detected in the usual manner. There are many good features, such as ease of control and high selectivity obtainable. This method of reception should only be used with a loop in New Zealand, unless special tests on the receiver have been made by the P. and T. Department.

TAPPINGS.—Variation of the number of turns of a tuning coil in use is sometimes made by taking "tappings" from various points in the winding to the contact studs of a multi-contact switch.

TELEGRAPHY.—The system of the transmission of intelligence per wire or radio by means of the Morse or other telegraphic code.

TELEPHONE RECEIVER.—The apparatus with which the signals are changed back from the electrical vibrations to which the initial speech or music has been converted for the purposes of transmission to sound waves, and so made audible.

RADIO DIRECTORY

What to Buy and Where

AUCKLAND

ATWATER-KENT RADIO .. All Radio Dealers.

ALTONA & HAMMARLUND. Frank Wiseman, Ltd.
170-172 Queen Street, Auckland.

ROBERTS SETS. Johns, Ltd.
Chancery Street, Auckland.

AMPLION LOUDSPEAKERS . Superadio, Ltd.,
147 Queen Street, Auckland.

BREMER-TULLY RADIO .. All Radio Dealers.

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 .. 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

ANCHORADIO, BREMER-TULLY, RADIOLA, BROWNING-DRAKE, AND ATWATER-KENT RADIO Radio House,
Hamilton. G. S. Anchor, Manager.

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.

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.

PHILIPS VALVES AND APPARATUS All Good Radio Dealers,

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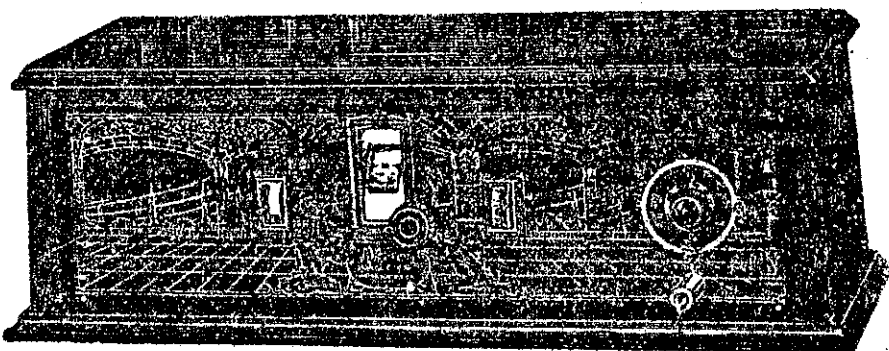
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For the Constructor.

THE following are jottings from the lecture delivered by Mr. C. C. K. Fear before the general meeting of the Wellington Amateur Radio Society. Mr. Fear is a recognised authority on the Browning-Drake circuit.

The gauge of wire in most coils can be varied a point or two without incurring trouble. A few more turns are needed for the thicker wire.

The covering of the wire is not of great importance. Silk (D.S.C.), cotton (D.C.C.), or enamelled wire are equally suitable. Enamelled wire should be space wound owing to thin insulation. Close winding would result in a high self-capacity coil.

Space winding is very effective, but hardly necessary with D.C.C., the insulation being an effective spacer.

The impedance on the first valve must match that of the slotted primary. AUX199 valve or Philips 630 are suitable H.F. valves and require 25 turns on primary. Philips A609 or 409 or UX201 require 17 turns.

If a Radiotron valve UX199 is used with six-volt valves in the rest of the circuit a resistance of 33 ohms must be wired in series with the filament.

Tone, not ratio, should be the guiding factor in selecting a transformer. Ratios of $3\frac{1}{2}$ to 1 should be considered sufficient. Ferranti products are suited for the purpose.

In general, the bigger the transformer the better—Philips is an exception. Smaller transformers are not worth while.

If a high-pitched squeak greets the listener on tuning-in, the H.F. current is feeding back into the amplifier. Embody an H.F. choke between the tickler and the first and second transformer, marked "P."

A Corner for Beginners

— By Observer —

Keep the grid and plate wires short and the wire between the fixed plates and the grid short and up from the baseboard.

Clean Connections.

THE importance of these cannot be over emphasised, especially where low-powered sets are to be employed. One case in particular is worthy of mention in this respect.

A dealer was called upon to fit an amplifier to a crystal set already in commission. On taking up the phones it was noticed that volume was very weak, so weak that it would be difficult to suitably amplify the current with the one valve to be used.

A glance at the terminals revealed the cause of the trouble. The enamelled aerial wire was joined to a flat strip which passed under a window. This was connected to another piece of enamelled wire which, in turn, was connected to the crystal set. All joins were made by passing a loop of the enamelled wire through the next conductor. No attempt had been made to clean the wire.

On being asked whether the strength had been improved by the use of a pocket knife, the reply was distinctly affirmative. The owner added—"and I thought we were getting good reception."

Wireless has been a novelty—it has passed that stage; it is now a definite utility. The onus of every listener is to find out what good reception is, and

to ensure that his reception is pure and undistorted.

To See How it Worked.

VERY puzzled, an owner who prided himself on how much he knew about radio, took his machine in to be tested. It was not going as he wished it to go, and he had been unable to locate the trouble. The expert, detecting a technical fault, which was more than the average listener would be able to track down, adjusted it and handed it over complete.

The radioman, not wishing to make known the technicality, kept his secret. The customer was not satisfied, and several days later the set was returned, refusing to function.

Investigation showed the set had been tampered with—this time the expenses were very much heavier.

It is unwise for the listener to take his set apart to learn all about it. There are certain things every efficient radio operator must know, but when it comes to technicalities, leave that to the man who has had experience, and training, and expect to fully reward him for his service. After all, its cheap instruction and entertainment.

When the Set is Going.

THE warning voiced by Mr. Fear not to tinker with a screwdriver when the set is in use reminds one of an unpleasant incident which befel an experienced amateur. Incidentally, the set was a Browning-Drake and had been going well for some time, but appeared a little dusty. Taking a steel brush, the owner set about "cleaning-up." He was more successful than he had anticipated. No less than five valves were "cleaned-up" at once. Mr. Fear's advice is not without ground—heavily insulate all wires, leave the set alone when the power is connected. If the wiring is uninsulated, then it is imperative to undo the B plus leads before you alter anything inside the set itself. Failure to take this simple precaution costs listeners thousands of pounds for new valves.

Improving the Crystal Set.

A CORRESPONDENT writes: (1) Is it possible to run two crystal sets off one aerial and get the same volume as you would with two aerials? (2) Can two crystal sets be coupled together in any manner to obtain double the volume of one? N. T. Sowry (Lower Hutt). (1) It is possible to run two sets from one aerial with satisfactory results, but for the best results separate aerials are required. (2) No; to increase signal strength from a crystal the following methods may be adopted: (a) Improve the aerial or the earth; (b) use a more sensitive crystal or a more suitable coil; (c) improve and solder connections where possible; (b) add a valve amplifier.

Intermittent Reception.

IT often occurs that signals, apparently normal, go right out without any indication of cause, to come on a little later as though nothing had happened. This, to those unacquainted with their sets, may cause quite a great deal of uneasiness, and may even cause radio to be condemned.

A little trouble tracking on the part of the listener in the right direction will in all probability reveal the trouble without the aid of an expert.

Intermittent signals caused by the receiving set will most likely have their origin in one of the following:—

(1) Loose valve connection. An instance in this respect may serve to illustrate the point. The owner of a table model receiver was puzzled by the failure of his signals. At times the set worked perfectly, but on other occasions it was turned on and there was no response. Being unable to solve the mystery, a dealer was called in.

Finding the instrument silent the radio man tapped it, and without more ado it went as sweetly as desired. Tapped again, silence ensued. A glance inside the cabinet was sufficient to confirm his suspicions—a loose valve connection! Removing the offending valve from its socket, prising the split in the prong and replacing it was all that was necessary to put the set in working order. Moving or dusting a receiver will often cause a loose valve to give trouble.

(2) A broken lead-in wire. When the lead-in from either the aerial or the earth breaks within its insulation this phenomenon may result and with out careful examination would not be detected.

(3) Broken transformer windings.

(4) Faulty phones or speaker.

The two latter may have a direct bearing on the battery voltage, and in this connection much trouble has been hard to track. A customer brought a pair of phones into a local man complaining that they would not reproduce any signals. The dealer, connecting them to a small valve set, found them in perfect condition and returned them to the astonished owner. On returning home the listener found that his set would still not work.

The whole set (a crystal) was taken to pieces and rebuilt, still without result. In desperation the dealer was again referred to, and as before the phones gave excellent reproduction. To make the test more extensive a crystal set was brought into operation—this time silence.

A few moments' contemplation resulted in an explanation which on investigation proved to be correct. The coil inside the phones were broken. When applied to a set using a battery a spark jumped the gap and established a connection. This could quite easily explain intermittent signals resulting from a break in the transformer or speaker windings.

Reduction of Noise.

A GOOD many people who complain of interference from such sources as leaky power lines, have never tried the effect of a counterpoise. A counterpoise is simply another aerial strung a few feet above the ground, directly below the main aerial. It may very well consist of two or three wires, anything from one to several feet apart. The wires in the counterpoise, which is insulated from the earth and from

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the aerial, are connected together and to the earth terminal of the set. No connection to the earth is then made. Usually this will be found to make a great reduction in power interference, and may lessen the effect of static.

Children's Sessions

AT 1YA.

TUESDAY, OCTOBER 23.—Uncle George and some little competition people will cheer you all for an hour this evening. The Gramophone-man will also be present with his records and interesting talk about them.

WEDNESDAY.—Good-evening Uncle Tom. We're pleased to hear you again, and your little helpers. Also Birthday Greetings and messages from Radio Postman.

THURSDAY.—Here is Peter Pan with a troop of Scouts, so keep your ears wide open till 7 o'clock for their fun, not forgetting the Scout Haka at the end.

FRIDAY.—Nod and Aunt Jean also have some little competition people with them, and Aunt Jean has more sweet songs for the radio family. Nod has splendid stories and there will be Birthday Greetings, too.

SATURDAY.—Cinderella has all sorts in the glass slipper to-night. Cousins reciting and playing the violin, and Uncle Mack will tell more exciting stories of India.

SUNDAY.—Children's Song Service, conducted by Uncle Leo, assisted by children from the St. Peter's Presbyterian Sunday School.

AT 2YA.

MONDAY, OCTOBER 22.—There will be songs by some new boy cousins, Bill and Percy, and also by Cousin Phyllis, who often gives pleasure with her singing. Uncle Jeff will tell you where to find your fairy gift, and Aunt Gwen will read one of her bedtime stories.

TUESDAY.—Cousin Zac will play his steel guitar, then Cousin Marjorie will sing, Cousin Claudia will play the piano, and little Cousin Clarice, who is only a wee-mite, will sing. She will also play her own accompaniment. Big Brother Jack, and his Old English Game Rooster will also be there.

THURSDAY.—To-night, four little girls will play two pianos at the same time, and they have learnt the duos specially to play for you. There will be other good things, too. Uncle Pepper will come with more of his wonderful stories of the South Pole.

FRIDAY.—To-night brings once again those clever little pupils of Mrs. Theo Hill's, whose last programme gave so much pleasure. There will be birthday greetings from Uncle Ernest, and another of his wonder stories.

SATURDAY.—Listen in to the pupils of Mrs. E. Mackay and Miss Edna Sneddon to-night. This is party night, so Uncle Toby

and Aunt Gwen will hurry along with the greetings early, and then they will tell a bedtime story before the end of a happy hour.

SUNDAY.—The Children's Song Service will be conducted by Uncle Ernest, assisted by the Cambridge Terrace Congregational Sunday School Choir, under Mr. Reynolds.

AT 3YA.

MONDAY, OCTOBER 22.—"Scatter-joy" will tell of unusual and delightful gardens in far away lands. "Rebecca," of Sunnybrook Farm, and Bookland, will visit 3YA and provide laughter and fun. Greetings and Best Writer's verse.

WEDNESDAY.—Mother Hubbard is going to answer all Uncle Peter's questions and riddles to-night—so watch out for some fun.

THURSDAY.—This is our night with the Gramophone Box—so Ducky Blob, the Raggedy-doo man, and the Toyman will visit us, and you will hear some good things.

FRIDAY.—Big Brother, Miss Arpeggio, and the boys' choir from West Christchurch School will keep you well entertained to-night.

SATURDAY.—Listen well to-night, for a little band of singers and merry-makers from Tai Tapu are coming to cheer you all at the end of this day.

SUNDAY.—The Children's Song Service, with Uncle David in charge, and the children from the Congregational Sunday School singing the hymns.

AT 4YA.

TUESDAY, OCTOBER 23.—Long, long ago, in the days of the earliest Britons, what did boys and girls do for fun? Did you know that they played knucklebones and hop-scotch? And did you know that they had peg-tops with whips, and played marbles? If you didn't know these things, what about coming back a thousand years in the "Time Scooter" and seeing for yourself? There will be a group of children to play and sing on the way. And, of course, the letters and the Radio Postie.

FRIDAY.—A concert party from the Salvation Army Home will be on the air to-night from 4YA. Aunt Sheila will tell one of the little stories that mothers told their bairns a thousand years ago. And the family will go a trip on the "Time Scooter" as far as the Panama Canal. Nothing to see there, says somebody. Isn't there, you just come and see. The Radio Postie will deliver his presents as usual, even though we shall all be such a long way from New Zealand.

(Continued from page 32.)

70 metres, and R4 on its first harmonic. Reception very good.

3ZC, the new shortwave station of Christchurch, was heard testing on 50 metres. Volume was good enough, but plenty of room for improvement in other directions. This, of course, will be soon improved.

Friday, October 12.

5 a.m. till 7.30 a.m.—PCJJ. R8—9 till after 6.30, when volume decreased to R5 at 7.30 a.m. Reception excellent. Slight static; very steady. 5.15 a.m. till 6.30, 7LO, Nairobi. Report earlier in notes.

2XAD testing with 5SW. R8-9 very clear and steady. Could only hear the American speaking from this end.

5SW, R8.—From this station both sides of the conversation could be heard. The Englishman 100 per cent., while his friend was only readable in parts—about 25 per cent. The speakers were: American, Mr. Lynn; Englishman, Mr. Wilson.

In closing the test at 5.43 2XAD said: This is W2XAD signing off with EG5SW, Chelmsford, etc. 5SW announced they were closing down till 7 p.m. GMT.

The next test was arranged for next Monday (Tuesday morning here).

On about 16 metres a lady was heard talking, too faint—R2-3—to understand what was said. Probably ANE, Java.

2XAD was heard again with a musical programme, and was still going when I left them at 7.25 a.m.—R5.

5S.W.—Big Ben was missed on account of listening to 7LO, Nairobi, signing off.

A talk was on when tuned in.

At 7.30 a.m. some Irish songs were heard, including "Father O'Flynn" and "Off to Philadelphia." Irish jigs on a violin followed.—R8.

3ZC was again heard testing, but still far from perfect.

RFM was spoilt by static, which was bad on all wavelengths during the evening.

2HC, New South Wales, 80 metre,

band, and 2—, Goulburn, on the 30-metre band, were testing. Good strength, but static bad.

Heard in Masterton.

J. D. O'Loughlin (Masterton) writes: "On October 10, I picked up a new station on about 38 metres. At 5.15 a.m. a lady was announcing: 'Hello, Western Australia. Hello, Melbourne stations. Hello!'" Later, a man announced, but did not give the call. He then spoke in Dutch. At 7 a.m. they grew weaker and unsteady. Although he called "Hello! Hello!" no call was heard. Records were put on at 7.15, but grew weaker. It was probably a station in the Dutch East Indies—perhaps 3BB. On October 12 I heard a station on 33.5 metres at 6.25 a.m. A record was played, and he closed down after saying a few words in English with a foreign accent. P.S.—The Canadian station was heard at 5.23 p.m., not in the morning.

[The Dutch station heard was probably PCLL, Holland (see Mr. Sellens' Notes).]

AS the paste inside an H.T. battery or flash-lamp cell is just as destructive to carpets, etc., as accumulator acid, great care should be taken when such batteries are being opened that none of the paste comes into contact with floor coverings, furnishings, etc.

IF your condenser reading appears to alter so that a station is sometimes tuned in at, say, fifty degrees, and another time at fifty-six degrees, the trouble is probably due to a faulty earth connection.

QUICK work was evidenced in the erection of a broadcasting station in the most important of Italy's Alpine provinces, which before the war belonged to Austria. A new company was formed, aiming to serve the locality and decided to erect a 200-watt broadcasting station. A month later it was opened. This is the fourth transmitter in Italy, but two more are in the course of construction.

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Extended opportunity for a Cheap, Healthful Week-end Jaunt.

Reduced Fares to any station will be in operation from 19th to 22nd October—available for return until 27th October.

Tickets obtainable 14 days ahead of Travel Date.

Five Continents Heard in One Day

Mr. F. W. Sellens writes:—

A letter received from N. V. Phillips Radio, Endhoven, Holland, during the past week, confirms the schedule of transmission from PCJJ, published a fortnight ago.

Mr. White, Takapuna, has heard the German station working at about 41 metres, give the call RSR, also their address. This station has often been reported, but the call has not been heard by the writer for some months.

Mr. White heard RSR on October 5, at 5.15 a.m., and again at 5.30 p.m. the same day; also on Saturday, October 6, at 5 a.m.

The station reported last week, call not heard, but thought to be ANDIR, on 38.5 metres, proved to be PCLL, Kootwigh, Holland, it being heard again this week with the call given on closing down.

This Dutch station has been heard before, but on 18.07 metres.

THE past week has, I think, been a record one for interesting reception.

AT last Africa has been heard in New Zealand transmitting speech and music, not a freak reception, but on three consecutive mornings.

The new short wave station, 7LO, of the British East Africa Broadcasting Company, at Nairobi, Kenya, was picked up first on Wednesday morning, October 10, at 5.45 a.m., on about 33 metres. The call, 7LO Nairobi, was heard once only.

This station was heard again on Thursday and Friday morning. The best reception was the last, picked up at 5.15 a.m. at R4, when what appeared to be market reports were heard, static spoilt intelligibility; shipping news followed, and an announcement in deference to future transmissions (this was not readable, except for odd words).

From this on till 6.30 a.m., musical items were heard, the call being given after every second number, with the name of the last two, and of the items to follow. At 6.30 a.m., a clock struck 10 p.m., the closing announcement following, that it was 7LO, Nairobi, short-wave station of the British East Africa Broadcasting Company, wavelength given was 32—(the fraction was missed, but my calibration chart shows it near enough to 33 metres), closing down till 7 p.m. to-morrow—Good-night. Strength at finish was about R8. Very steady, static troublesome, when signals were weaker, but did not increase with the volume of reception.

According to this, 7LO is to be heard here from 3.30 a.m. till 6.30 a.m., New Zealand standard time.

Five Continents Heard in One Day.

This was achieved on Friday, October 12. Europe: 5SW, England; PCJJ, Holland; Asia: RFM, Siberia, Africa, 7LO, Nairobi; America, 2XAD, Schneetady; Australia, 2HC, New South Wales, and 2—Goulburn. Each station was heard at least a part of the time on the loud speaker, loud enough to be readable several feet away.

New African Station Heard on Loud Speaker

Special Farewell Programme from KDKA, to Commander Richard E. Byrd and party.

This was heard from 3.30 p.m. till 4.30 p.m. on Sunday, October 7, 1928, transmitted by the Westinghouse Company's station, KDKA, East Pittsburgh, Pa. U.S.A., on 25.4 metres.

At 3.33 p.m. a fifteen minute programme of music was announced from the William Penn Hotel, Pittsburgh. This included "Teach Me to Smile," "Indian Cradle Song." The last item was called "Good Luck," an original lyric by an American composer (name given, but not noted).

The first speaker was Mr. Russell Holland, of the "New York Times." He gave the names of the party and their various duties and qualifications, also the purpose of the expedition. He described the bases at Ross Bay and the Bay of Whales. The dangers which Commander Byrd and party would encounter both by air, land, and sea were mentioned. A message from Commander Byrd was read for the whole world.

A message from Mr. H. P. Davies, of the Westinghouse Company, who was termed "The Father of Radio Broadcasting," was read.

Other messages were read from various people to Commander Byrd and to individual members of his party. One request was for a chip of the Pole to be brought back.

It was announced that this was the first of a series of weekly broadcasts to be carried out on both long and short waves for the benefit of the entire world.

Mr. Patty, of Gisborne, an amateur of Montreal, and members of the American Radio Relay League were thanked for their valuable services.

The addresses were given for friends of members of the expedition to send their messages to be transmitted each week.

The wavelengths to be used by KDKA are 316; 62.5 and 25.4 metres. Power, 40,000 watts in the antenna. The latter is the best for reception in New Zealand.

The whole of the preceding transmission was heard at good speaker strength, crystal clear, and very steady—in fact, perfect reception.

Other stations heard are as follow:—

Saturday, October 6.

5SW was R8 when tuned in just before leaving home.

2XAD at 1.30 p.m. was R 3-4 with rapid fading. Their volume increased to R9 by 4.30 p.m. Dance music from the Hotel St. Regis was heard during the last hour.

KDKA was tuned in first at 1.30 p.m., when they were R3. An orchestra at the William Penn Hotel was responsible for the latter part of the programme. Strength when closing down at 4.10 p.m. was R6.

PCJJ were much weaker than usual at 3.30 p.m., being about R4. Maximum was reached at 6.40 p.m., when they signed off. R 8-9.

Both Morse and static interference

were bad. RFM was good volume, but spoilt by static.

Sunday, October 7.

1AR, Auckland, at R5, was heard in the late morning.

2XAF was only listened to for a few minutes on account of the special transmission from KDKA. This was at 2 p.m., when they were very weak. The carrier of KDKA was audible at 11 a.m. At 1.30 p.m. talk was barely readable; by 2 p.m. volume was good enough to hear, understand announcements, etc.

The special programme commenced at 3.30 p.m., reported earlier in these notes.

RFM on its first harmonic—35 metres, though weak, was clearer than on 70 metres, static being very bad on that wavelength.

Monday, October 8.

At 6 a.m. a station on 32.5 metres was heard transmitting music and talk. Static was too bad to get a call, it was probably TNM, England. 3LO was R8. A Morse static was troublesome. They closed down at 7.30 a.m., after the Melbourne Observatory time signal was given.

RFM at R9 was very good, but spoilt by static.

2AJ, Wellington, was heard calling 3KB, Melbourne.

Tuesday, October 9.

At 5.45 a.m. from 5SW: "1, 2, 3, 4, etc., Monday, Tuesday Wednesday," etc., then "This is Charlie calling 2XAD," was heard. This was another of the two-way telephony tests we used to hear before daylight saving time came in last year in Britain.

The American could be heard faintly through 5SW, but not direct. He apparently had trouble in hearing the Englishman at times, as he asked for quite a lot to be repeated. 5SW was 100 per cent. readable here. In the future these two-way tests are to be commenced at 5 p.m. instead of 5.15 p.m., "British Government Time." This was then amended to Greenwich mean time, which I understand is the same thing.

At 6.30 a.m. Big Ben was heard at R9. A talk on books followed. French was spoken from 6.45 till 7 a.m., probably a lesson in this language, as these are given weekly from London. A relay followed.

Wednesday, October 10.

PCJJ from 5 a.m. till 7.30 a.m. was excellent at even volume R8-9 all through. There was a slight fade and static.

ANE on 15.93 at R3 was unsteady.

RSR also R3. Static very bad.

PCLL on about 38.5 metres was R8. A woman was heard talking, calling "Hallo!" with a few words following, then another voice, much weaker. Probably duplex telephony, with ANE,

Java, which was on the air at the same time. Static bad.

3LO, Nairobi, tuned in first at 5.45. QRN and QRM both very bad. Orchestral items and talk were heard. There was slight, rapid fading. The call only heard once, and then did not believe it could be Africa till confirmed the next day by better reception.

5SW after Big Ben at 6.30 a.m. broadcast a debate between Miss Ellen Wilkinson and Mr. —, of the National School Teachers' Association. Subject: "Should Women be Paid as Much as Men?" A very interesting talk followed. Music and talk followed. R8.

2XAF were picked up at 7 a.m. just above PCJJ, too weak to be readable. At 7.30 they were R4-5 and were describing what I took to be a baseball match. It was, he said, the "last half of the second innings." Hits, misses and errors were mentioned, the crowd could be heard shouting at times. The description was about 50 per cent. readable.

At 3 p.m. KDKA were relaying dance music from the William Penn Hotel at R6; this increased to R8 by 3.36 p.m.

At 3.32 p.m., "This is the champion weather man speaking," was heard. He gave the weather forecast. Sports results and the schedule for to-morrow was given, closing down at 6½ minutes past 11 o'clock, E.S.T. Call given—8XK on 62.5 and 25.4 metres.

2XAF till 4 p.m. transmitted dance music from — Hotel, New York. After that they announced they would carry out their schedule television test till midnight.

A station, believed to be 2XAL, on 30.91 metres, was faintly heard about R2.

2AH was tuned in at 8 p.m.

Thursday, October 11.

5.30 a.m., ANE, 15.93 metres, was heard calling "Hullo! Buenos Ayres," several times. R7-8, very clear and steady.

At 5.50 a.m. an orchestra was heard on about 38.5 metres at R8, splendid reception.

The call given when signing off at 6 a.m. was PCLL, Kootwigh.

7LO, Nairobi, was first heard at 6.10 a.m. R7. Their call was distinctly heard soon after, with one of the last items as "In An Oriental Garden," and two x trots to follow, by the Savoy Orpheans. I left them at 6.20 for 5SW, and on returning found 7LO had closed down.

6.30 a.m.—5SW, Big Ben. Mr. —, who is too well known to introduce to you, will tell you his impressions of the 9th Assembly of the League of Nations Conference, just concluded. Gramophone records followed at R7.

RFM during the evening was R8 on

(Concluded on page 31.)

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