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MARCONI IN RETROSPECT

The Inventor of Wireless as we know

it, Reviews the Growth

Since his First

Trans-Atlantic

*Transmis-
sion*



UGLIELMO MARCONI, the inventor of wireless, spoke before a microphone in London recently and all America was within sound of his voice. His words crossed the Atlantic on short waves, to be picked up for rebroadcasting by a coast-to-coast network of fifty-nine stations. Marconi came on the air after a brief introduction by an English announcer whose accent gave sufficient clue that America was in tune with London.

The broadcast marked the twenty-eighth anniversary of the first trans-Atlantic signal, the letter "S" flashed across the sea from Poldhu, on the south-west tip of England, to Marconi and his assistants listening-in at the receiving station set up for the occasion in Newfoundland.

"I wonder," said a listener after he had heard Marconi talk, "if twenty-nine years ago Marconi dreamed that some day his voice would cross the sea to be picked up by millions as clear as if he were present in the room with the loudspeaker."

Marconi assured his listeners that he not only dreamed that the human voice would span long distances but that he is still dreaming of more triumphs for wireless, including the transmission of power through the ether. He called radio to-day child's play compared with wireless in 1901, when, with crude, cumbersome and insensitive instruments he picked up the first trans-oceanic wireless signal intercepted by an antenna held aloft by a kite. He used a coherer for a detector. The crystal detector and valve were later achievements.

"FROM the time of my earliest experiments I had always held the belief, almost amounting to an intuition, that radio signals would some day be regularly sent across the greatest distances on earth, and I felt convinced that trans-Atlantic radio telegraphy would be



MARQUIS MARCONI.

feasible," said Marconi. "Very naturally I realised that my first endeavour must be directed to prove that an electric wave could be sent right across the Atlantic and detected at the other side. What was at that time a most powerful wireless station was built at Poldhu, in England, for this purpose and an antenna system was constructed, supported by a ring of twenty wooden masts, each about 200 feet high. In the design and construction of this English station I was assisted by Sir Ambrose Fleming, R. N. Vyvyan and W. S. Entwisle.

"Another similar station was erected at Cape Cod in Massachusetts. By the end of August, 1901, the erection of the masts was nearly completed when a terrific gale swept the English coasts, with the result that the masts were blown down and the whole construction wrecked. I was naturally extremely disappointed at this unforeseen accident and for some days had visions of my test having to be postponed for several months or longer, but eventually decided that it might be possible to make a preliminary trial with a simpler aerial attached to a stay stretched between two masts 170 feet high and consisting of sixty almost vertical wires.

"By the time this aerial was erected another unfortunate accident, also caused by a gale, occurred in America, destroying the antenna system of the Cape Cod station.

"I then decided, notwithstanding this further setback, to carry out experiments in Newfoundland with a seasoned aerial supported by a balloon or kite, as it was clearly impossible at that time of the year, owing to the wintry conditions and to the shortness of the time at our disposal, to erect high masts to support the receiving aerial. On November 26, 1901, I sailed from Liverpool, accompanied by two technical assistants, G. S. Kemp and P. W. Paget.

—Continued on page 2.

RADIO SALE

BARGAINS IN SHOP-SOILED AND DEMONSTRATION SETS

EVERY instrument is tested, and guaranteed free from mechanical or electrical defects. At the prices quoted, each instrument is COMPLETE with all accessories, including valves, batteries, and loudspeaker, etc. (but excepting aerial equipment, which can be supplied for 11/6 extra when desired).

Further particulars of any model will be supplied on request.

	List Price	Sale Price		List Price	Sale Price
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
Brownie Crystal Sets, complete with headphones, aerial wire, insulated earth wire, etc.	1 12 6	1 7 6	Amrad 5-Valve, in mahogany cabinet. Complete	30 0 0	19 0 0
Watmel 2-Valve, in oak cabinet. Complete	10 0 0	7 15 0	Amrad All-Electric 5-Valve, in mahogany cabinet. Complete	50 0 0	27 10 0
Astor 2-Valve, in metal cabinet. Complete	10 10 0	7 0 0	Trav-Ler 5-Valve Portable. Complete	27 10 0	19 0 0
Astor 3-Valve, in metal cabinet. Complete	13 10 0	9 0 0	Selectra 6-Valve Screen Grid. Complete	47 10 0	37 10 0
Airmaster All-Electric 3-Valve. Complete	26 0 0	21 0 0	Crosley 6-Valve Model 6/80, in mahogany cabinet. Complete	34 10 0	22 0 0
Browning-Drake 4-Valve, less cabinet. Complete	14 10 0	10 10 0	Day Fan 6-Valve, in polished cabinet. Complete	32 10 0	15 15 0
Screened Grid All-Electric 4-Valve, less cabinet. Complete	26 0 0	20 0 0	Crosley All-Electric 6-Valve, in mahogany cabinet. Model ACT. Complete	40 0 0	25 10 0
Airzone 4-Valve Portable, with self-contained aerial and batteries and speaker. Complete	27 10 0	20 0 0	Crosley Bandbox 6-Valve, in metal cabinet. Complete	31 0 0	24 10 0
Radiokos All-Wave Screen Grid 4-Valve, less cabinet. Complete	25 0 0	20 0 0	Akradyne 6-Valve, in mahogany cabinet. Complete	35 0 0	20 0 0
Lissen 5-Valve Portable, self contained. Complete	32 10 0	22 10 0	Amrad 7-Valve, in mahogany cabinet. Complete	40 0 0	25 0 0
Gillian 5-Valve, in walnut cabinet. Complete	40 0 0	20 0 0	Branston 7-Valve Super-Heterodyne, in cabinet. Complete	45 0 0	22 10 0
Loftin-White 5-Valve, less cabinet. Complete	30 0 0	17 10 0	cabinet. Complete	45 0 0	22 10 0
			cabinet, with door. Complete with wet A and B batteries	70 0 0	35 0 0
			Kolster 7-Valve, in mahogany cabinet, with built-in speaker. Complete	47 10 0	32 10 0
			Fada 8-Valve Model 480A, in walnut cabinet. Complete	115 0 0	50 0 0

EASY TERMS.—We will arrange terms to suit your convenience at slight extra cost for accommodation. Write and tell us the model that attracts you, and the amount of deposit and monthly payments you can manage. We will endeavour to meet you. Any of the above sets will be quoted without equipment if desired.

CROSLEY SETS SUPPLIED TO NORTH ISLAND ORDERS ONLY.

ACCESSORIES AND COMPONENTS

The following are standard lines, but are offered at special prices to reduce inventory in some cases, and to clear up odd stocks in others.

	List Price	Sale Price		List Price	Sale Price
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
Eby 5-Valve Adapter Harness	1 17 6	1 5 0	50ft. Extension Cords	0 8 6	0 6 6
Eby 6-Valve Adapter Harness	2 0 0	1 10 0	Hoosick Cord Connectors	0 1 6	0 0 9
Dongan ABC Power Transformer	4 10 0	3 17 6	Western Electric Headphones	0 17 6	0 12 6
Deal 22½ volt. B batteries	0 10 0	0 8 0	Seranton Hydrometers—Ayanbee	0 3 6	0 3 0
Two for 15/6			Seranton Hydrometers—Marvel	0 3 9	0 3 3
Emuco Super B Eliminator	12 12 0	9 10 0	Seranton Hydrometers—Kantstick	0 5 6	0 4 6
RADIOKOS COILS—			LOUDSPEAKERS—		
Master Neutrodyne Coil Kit	1 12 6	1 4 0	Crosley Ultra Musicone	2 12 6	1 17 6
Circold de Luxe Coil Kit	2 5 0	1 13 6	Lissenola Cone	2 10 0	1 17 6
Browning Drake Coil Kit	2 0 0	1 10 0	Nora Cone	2 16 6	1 17 6
Standard 3-Circuit Tuner	0 14 6	0 10 6	Amplion Horn, AR9	2 13 6	2 7 6
Short-Wave Tuner Kit	2 15 0	1 19 0	Amplion Horn, AR19	4 10 0	3 19 0
Champion Bayer Coil Kit	1 5 0	0 18 6	Oak Flare, AR19	5 10 0	4 10 0
1923 Solodyne Coil Kit	2 10 0	1 17 6	3/16 Black Bakelite Panels—		
Airzone Browning Drake Coil Kit	1 5 0	0 15 0	7 x 12	0 6 6	0 4 6
Polymet Moulded Bakelite Condensers, all capacities	0 2 6	0 1 6	7 x 15	0 8 0	0 5 9
Polymet Plain Condensers	0 1 9	0 1 0	7 x 18	0 9 6	0 7 0
Lissen 2 mfd By-Pass	0 4 6	0 3 6	7 x 21	0 11 0	0 8 0
Lissen Power Condensers, 2 mfd	0 10 6	0 7 6	7 x 24	0 12 6	0 9 0
YESLEY POWER CONDENSERS—			Lissen Pick-up, with Vol. Control ...	1 5 0	1 1 0
.25 mfd, 1000-volt. Test	0 4 6	0 3 0	Blue Spot Pick-up, with Vol. Control ..	3 0 0	2 15 0
.5 mfd	0 5 6	0 3 8	Amplion Pick-up, with Vol. Control ..	4 5 0	3 15 0
1. mfd	0 7 0	0 4 8	Lissen Rheostats	0 3 6	0 2 9
2. mfd	0 9 0	0 6 0	7 Post Terminal Strips	0 2 9	0 1 6
1. mfd, 2000-volt. Test	0 16 6	0 11 0	9 Post Terminal Strips	0 3 0	0 1 9
2. mfd	1 1 6	0 14 4	Flexibus Hookup Wire, 10ft.	0 1 6	0 1 0
			AWA A.F. Transformers	0 13 6	0 15 0
			Benjamin Eng. Valve Sockets	0 3 9	0 2 6

NOTE.—We have many other Bargains. Write us about your Requirements.

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Wholesale and Retail Merchants

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Marconi in Retrospect

(Continued from front page.)

Experiments in Newfoundland.

"WE landed at St. John's, N. F., on Friday, December 6. On the morning of Thursday, December 12, the critical moment for which I had been working so long at last arrived, and in spite of the raging gale we managed to fly a kite carrying an antenna wire some 400 feet long.

"I was at last on the point of putting the correctness of my belief to the test. Up to then I had nearly always used a receiving arrangement including a coherer, which recorded automatically signals through a relay and a Morse instrument. I decided in this instance to use also a telephone connected to a self-restoring coherer, the human ear being far more sensitive than the recorder.

"Suddenly, at about half past twelve a succession of three faint clicks on the telephone, corresponding to the three dots of the letter S, sounded several times in my ear beyond the possibility of a doubt.

"I asked my assistant, Mr. Kemp, for corroboration if he had heard anything. He had, in fact, heard the same signals.

"I then knew that I had been justified in my anticipations and that the very enormous distance for radio of 1700 miles had been bridged. The electric waves which were being sent out into space from Poldhu had traversed the Atlantic unimpeded by the curvature of the earth, which so many considered to be a fatal obstacle and they were now audible in my receiver in Newfoundland!"

Repeats Famous Signal.

"AT this point Marconi touched a wireless key that repeated the three dots that comprise the "S" so that listeners in Europe and America could hear the signal that he picked up twenty-nine years ago. He said that the Institute of Electrical Engineers was the only technical and scientific body that "first believed in me and my statement of having received signals across the Atlantic."

"The spanning of great distances is now child's play compared with what it was then," said Marconi. "The 1-beam projector and other commercial radio telegraph and telephone stations are exchanging daily hundreds of thousands of words between distant parts of the earth. Wireless telephony over world-wide distances is a reality, together with transmission of pictures, and the day is perhaps approaching when television will also be a commonplace. It may even be that the transmission of power over moderate distances may be developed in the not far distant future. I must leave to your imagination the uses which can be made of these new powers. They will probably be as wonderful as anything which we have experienced today.

Have you secured your copy of "N.Z. Radio Listener's Guide? Dealers and Booksellers 2/6; Post Free 2/9—P.O. Box 1032, Wellington. Now Available.

Smugglers Trapped by Radio

Ingenious Apparatus which was the Downfall of the Operators



RECENTLY there appeared in these pages a photograph of the radio transmitting and receiving equipment used for purposes of secret communication by the bootlegging gang recently apprehended in America. A short description of the apparatus was also given, but now the detailed account of the smugglers' plant is to hand, and an extract from this appears below.

A "PIRATICAL" stronghold heavily armed and nestled high on a promontory overlooking the sea—smugglers running in their burdens under cover of night—speedboats loading up in the fog, and hastily returning to their bases before dawn—heavily-laden ships meeting by previous arrangement in sheltered coves—then, suddenly, the long-planned raid, with its simultaneous assaults on widely separated smugglers' retreats scattered along miles of coastline. Brigands under arrest!

Then the discovery that radio had trapped them.

It sounds like a page out of Stevenson! Smugglers, guns, hidden caves, forbidden bounty, night watches, running chases, revolvers and old swords—all the scenic accessories for a sequel to "Treasure Island."

But this is no story out of fiction. It is an actual happening, a thrilling narrative of modern piracy, with the cunning law evader outwitted by the modern use of radio.

This episode has all the dramatic suddenness and the fanciful variations of a Stevensonian adventure, brought up to date by the introduction of high-speed boats, machine guns with concrete defences, and radio. It was enacted only a short time ago along the Atlantic Coast within a few miles of the busy metropolis of New York.

At thirty-five different points along the shore, from Atlantic City to the eastern end of Long Island, probably old haunts of the smugglers of yore, the Government agents swooped down at the "zero hour" of four-thirty a.m. to surprise the lawbreakers. By six o'clock that same morning the job was done and thirty-two alleged bootleggers were in the hands of the law.

Among their booty prohibition officers found cases of liquor, pistols, guns, magazines, automobiles, records, books, boats, and a real "stronghold." But most interesting was the wireless equipment discovered in the mansion of the "million-dollar" outfit that operated six boats, a fleet of speedboats and a trucking system for transporting the liquid goods. Among the prisoners was the radio operator of the bootleggers' station that directed this fleet for the master-mind of the rum-ring.

As the details of the sensational raid were disclosed it became evident that radio had played a big part in the location of the various rum quarters, revealed its operations, and finally helped to close in on them. It is probably the first time that radio has

been used on such a big scale, both by the bootleggers for their criminal practices and by the Government for their location and apprehension.

ON top of Beacon Hill stands the mansion. It was there that the radio station, with the operator at the key, was found. To the average person it is an ugly, lone house, left unoccupied for the last fifteen years. That single wire, coming out of a window and running to a thirty-foot pole on the estate, might have been anything, including an aerial to pick up broadcast programmes. When the Government sleuths approached it, and

together with a wave-meter and code books, were taken also. Even a copy of the coastguard's secret code book was found on the operator's desk.

It is not exactly certain at this time what the frequencies were on which the signals were sent, over the rum runner's radio network. Frequency changes, however, were often made, and the code they employed frequently altered besides.

UNDOUBTEDLY the bootleggers' own cleverness defeated them. Radio is not commonly used by smugglers, and any signals of suspicious character are usually reported by

It was possible to train compass direction finders on the emanations, but due to the frequency variations and the short waves that this station used, instruments designed for lower frequencies did not operate accurately.

AFTER weeks of work, instruments were brought to within a mile or so of the suspected station. It wasn't realised even then that the station was engaged in assisting the unlawful traffic of liquor, but the department was convinced that the operator was a violator of the law which requires stations and operators to be licensed. It was therefore its business to locate the station and silence it. It was soon clearly established that there was some definite relation between the station's signals and the shipments of liquor. It seemed strange, for instance, that the set was constantly working when trans-Atlantic traffic was busiest. Many messages were intercepted, and though they were difficult to copy, the first transcripts were sent down to Washington for decoding by the army experts.

It was an amazingly clever code, the main secret of which was the use of long words instead of short ones, and vice versa. Three of the code books were found during the raid, together with the copy of the coastguard smuggled in from a spy "planted" in the Government service. Thus, it was an easy matter for the operator at Highlands to intercept messages sent by unsuspecting Treasury officials to the Coast Guard ships and bases and to turn them over to the bootlegger chiefs. Thus informed, arrangements for the shipment and distribution of liquors could be made without interference.

THE charges faced by the rum-runners' wireless operator are for the violation of the Volstead Act and for transmission without either a station or an operator's license. It is said that this is the first time that the Radio Act penalties will be applied to such an offender.

With the discovery of the main transmitter of the radio rum ring, the prohibition forces have crippled the communication system built up at great cost by the bootleggers. It is said that the message warning the sea-going boats filled with liquor to turn back because of the raid was flashed by another secret installation which has not as yet been found.

In their fleet of six ships clearing from St. Pierre to Bermuda, but allegedly making side trips to within the harbour lights of New York, and a swarm of ten speed boats to do the unloading and fast ferry-work between the "mother ships" and shore, the bootleggers had a very comprehensive radio network, the extent of which probably will never be learned by the authorities. It is thought that all the ships, including the speed boats, were equipped with radio, and were directed in their moves by the main station located in the house captured on the Highland hill top.



Miss Marjorie Skill, a lyric soprano from Sydney, where she is in great demand as a broadcast artiste and concert singer. Miss Skill appeared at 2YA during the Christmas season.

watched the operator at the key, they knew, from the information provided by the radio service of the Department of Commerce, that this was a transmitting station.

What they found, when they finally reached the radio room, so quietly that even the operator on watch was undisturbed, was a typical station of the amateur type.

Months of patient listening-in on the station that turned out to be an illicit one, enabled the expert to pick up the thread of the code message, and continue the radio conversation with the ship at sea. It was nearly decoyed into the net of waiting coastguard ships specially detailed to watch the landing spot, to which the rum runner was directed by the Government's radio expert.

It was a short-wave set that was doing the damage—probably costing not more than a thousand dollars to build. The transmitter, of the conventional design, was panel-mounted and of fairly neat construction. Together with this working transmitter, the raiders seized another set in the course of being assembled. Receiving apparatus,

amateur's who are listening in on practically every wave length below the broadcast bands. It is not surprising then that amateurs in the surrounding district should have promptly noticed and reported to the Government radio inspector strange signals transmitted within their wave bands.

Though it was impossible for these amateurs to locate them definitely, the strange tactics of a station which they believed to be of an amateur ownership suggested to them questionable use of a device that they respected greatly. Complaints were lodged, and a search was then made by the Government Department which has charge of policing the air—the Radio Division of the Department of Commerce.

For months a young engineer member of the staff of the Second District listened to the signals. The call letters used corresponded to no known amateur's station that was lawfully operating at the time. The fact that the station would send for hours at a stretch, at one time being "on" for a full eighteen hours, aroused further suspicion.

Rum-Runners and Radio

(Concluded from page 3.)

THIS apprehension of rum-runners in the unusual manner just related is only one of the tasks for which the Radio Division of the Department of Commerce is equipped. Its great duty is the policing of the air. Its personnel and instruments to do this apparently hopeless job are relatively small. Yet it keeps a watch on the 650 odd broadcasting stations, the 16,000 licensed amateur transmitters, and the thousands of commercial stations.

Its main function is to keep the transmitters on the frequency or wavelength assigned them by the Federal Radio Commission. In hunting down frequency changes and variations, it often discovers lawbreakers and unlicensed stations. Then enters the engineer with his direction-finding equipment. . . . And a lawbreaker is caught!

Has Broadcasting Harmed the Church?

Religion of To-day

RELIGION, like art and science, is taking a new form through the influence of radio broadcasting, and in the following article by the Rev. B. G. Bouchier, M.A. (from "Popular Wireless") the writer challenges the critics who say that broadcasting has killed religion and that the Church is dead:

Any estate agent, when extolling the virtues of the house he hopes to sell you, will not forget to add that there is h. and c. laid on. He serves a useful purpose if only in reminding us that to have gas and light and water laid on, to the humblest dwelling, is one of the sunny sides of civilisation.

And now, at trifling cost, a man can have his religion laid on, too. With a home-made wireless set he can tune

in on Sunday to any of the stations from which a service and a sermon are being broadcast. What easier way of taking the devotional pill than that it should be swallowed by the fireside in slippers ease—particularly on a cheerless winter night!

An Unforeseen Factor.

THAT is a development which could never have occurred to the religious leaders of an earlier day. It is also a development which by no means has the full approval of all religious leaders of the present day. A number of worthy folk are asking themselves in desperate apprehension whether this broadcasting business is not a wolf disguised. Frankly, they fear that it is doing the Church irreparable harm at a time when that body needs all the support it can get.

I can quite see the force of their arguments. It is all very well for the aged and infirm to stay at home and listen to a service through the earphones, but it is a habit which is likely to spread to the hale and hearty.

Of the hale and hearty God expects, at any rate, the weekly pilgrimage which is the journey to the nearest church. Moreover, he expects corporate attendance at His house. Knowing what we do of the weakness of human nature, it is not outrageous to assume that the average man will compromise between his inborn laziness—or call it love of comfort—and the promptings of his conscience with timely microphonic aid.

Armchair Worship.

YES, I see quite well that danger. I admit that it exists, and, to go farther, I believe that when once a man stoops to bargain with his conscience the day is not far distant when he crosses it off his visiting list for good. In other words, directly the erstwhile ardent churchgoer contents himself with armchair worship he is in danger of dispensing with worship altogether.

But there are points about this broadcasting which far outweigh those possibilities. There are points which give radio the chance of bringing about the nearest approach to a revival which modern times could witness. If materialism has grown to the proportions of a monster dragon, radio looks remarkably like a steed to bear St. George.

One of the greatest difficulties which confront the spiritually ambitious clergyman is that he must, perforce, preach to the converted, or, at any rate, to those who, by their presence in his church, advertise their outward allegiance to the faith.

Believe me, many an earnest preacher aches to reach the multitude outside. He can't because they will not come. He is tired of expounding the Gospel to those whose academic acquaintance with the Word is probably equal to his own.

He wants to talk to the people who never go inside a church except to marry or bury their dead. He wants to explain away many of the fallacies

about religion; to relieve it of the stultifying Victorian tradition "goody-goodyism."

Christ, you remember, was not satisfied with ninety-nine sheep within the fold; he spent His whole energies in a quest for the hundredth which remained outside. Why? Because those outside matter, in a sense, far more than those within.

Radio can reach the Great Outside. There must be many a man who listens-in to a sermon for the simple reason that there is nothing else for him to do. He may come to laugh and stop to listen. Once he listens, the day will dawn when he heeds as well.

That point can hardly be denied. Your preacher measures the amount of good he hopes to do by the number of upturned faces which confront him when he mounts the pulpit. A church is like a theatre in that the larger the congregation the greater the inspiration to the one whose business it is to speak.

The All-Penetrating Message.

BEFORE the microphone one's chances are unlimited. Brick walls crumble and distance disappears. Wireless waves are all-penetrating, and it is a magnificent thought that the message with which they are charged possesses that quality, too. He would be a poor man, indeed, who, in those circumstances, did not give of his best.

I do not pretend that a cloak of piety will settle on the nation because a service is broadcast every week, or even every day. Not every man can reach the hearts of other men, how ever hard he hammers. But there are men in this country—and I have listened to some of them—whose Divine talent for doing so languishes almost to the point of death within four narrow walls. Transport them to the microphone and I am as certain that their words will bear fruit.

An Open Door.

PEOPLE have been crying out for the last fifty years or more that the Church must be brought up-to-date. The fact that it lags behind the times has been responsible, they say, for dwindling congregations and the decaying state of national spirituality.

Very well! The Church must be brought up to date, and wireless on its present scale is about the most recent development which science can show. By means of it thousands will have an opportunity they never had before.

Broadcasting has not harmed the Church. It has widened its scope beyond the ardent reformer's most fantastic dreams. It has thrown open a door that has been sealed to Calvary; the door to the ears, if not the hearts, of those who never see the Cross.

Valves and Transformers

IN order to ensure maximum results with a modern I.F. transformer, the makers' instructions concerning the valve impedances should be followed very closely.

DO not suppose that because the filament of a valve is not broken it must necessarily be capable of giving results, for this will not be the case if the valve has lost emission.

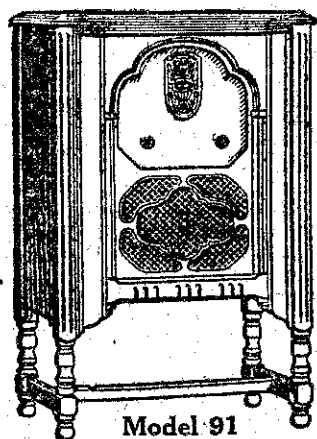
MAJESTIC--DOMINANCE --PROGRESS--EXPANSION!

Colossal Sales and Nett Profits

Huge Majestic Programme Planned for 1930

The success achieved by the "Majestic" Company can be gauged by the fact that sales of "Majestic" Receivers for the MONTH OF OCTOBER aggregated £2,070,000 (double that of October, 1928), and the NETT PROFITS after deducting income tax for the MONTH OF OCTOBER, 1929, totalled over £258,000 (over double the nett profit for the month of October, 1928). With this encouraging success, "Majestic" plan—

GREATER DEVELOPMENTS FOR 1930



Model 91

Improved Majestic Super Dynamic Speaker. Extra heavy, sturdy Majestic Power-pack, with positive voltage-ballast; insures long life and safety. Early English design cabinet of American Walnut. Instrument panel overlaid with genuine imported Australian Lacewood. Escutcheon plate and knobs finished in genuine silver. Price, Main Ports .. £48 Inland and Outports £50

"Majestic" Receivers sold during 1929 total more than its nearest two competitors. The Majestic Company are now the world's largest producers of complete radio receivers.

In the most critical market in the world, the largest number of people who have ever purchased one make of radio receiver, decided on a "Majestic." The prospective buyer of a radio receiver should benefit by their experience.

Two Million People Can't
be Wrong!

Your Investment is Safe in
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Box 516, Dunedin.

LOCAL authorities in French Morocco are making great efforts to extend the use of radio more and more through the country, and the number of persons using it—both Europeans and natives—is increasing every day. In 1926 the value of sets imported was 195,000 francs, in 1927 the value was 335,000 francs, and last year the imports reached a total value of 1,930,000 francs. Through the enterprise of the "Amicale Radio-Alger," a powerful broadcasting station has been built in the immediate environs of Algiers. The transmissions of the new station, with its power of 15 kilowatts, are expected to cover a radius of some 1250 to 1875 miles. It will be, in fact, the most powerful broadcasting station in the whole of French North Africa, and the equal of the powerful Continental stations.

SEVEN years ago the London, Birmingham and Manchester stations broadcast their first programmes under the auspices of the British Broadcasting Company, Ltd. A year later listeners, who then numbered less than 500,000, were entertained with a birthday programme, the items of which were given by the regular B.B.C. staff, including its technical members, a particular star amongst the latter being Captain Eekersley. Each year since 1923 the Savoy Hill staff have brightly celebrated the birthday of regular broadcasting in this country, and recently, once more, listeners—there are now 2,760,000 licences—heard a staff entertainment. Programme organisers, an engineer, an announcer and several secretaries united to produce a highly successful evening's entertainment.

LAST April, when annual wireless licenses in Denmark expired, many listeners refused to renew their licences owing to the interference caused to broadcast reception from Copenhagen by the Government's own wireless telegraph and telephone station at Soro, which maintains a service between the mainland and the island of Bornholm. In response to the listeners' attitude, writes a correspondent, the Government has now decided to close down the Soro station and lay a cable to Bornholm.

RECENT research work on skip-distance effects and fading has shown that on all wave lengths from 15 to 100 metres signals fade in strength up to 100 miles, but as the distance increases those waves below 60 metres increase in strength, the extent of the recovery being greater the shorter the wave-length; thus 15 metres will give a strong signal during daylight at 9000 or 10,000 miles. This is said to be due to the facts that up to 100 miles the wave propagation depends mainly on direct rays leaving the aerial at low angles, the energy being soon absorbed; the rays which are shot off at greater angles enter the Heavenside Layer and are finally shot off it down to earth again, reaching the receiving aerial at about 15 degrees.

THE radio valve in the make-up of its chemical and physical properties, is one of the most complex products of an age of scientific wonders. These every-day valves comprise no fewer than forty-three elements, together with fourteen rare earths. Among the better known metals incorporated in their composition are: silver, copper, aluminium, mercury, tin, lead, iron, nickel and tantalum. Among the gases employed are hydrogen, argon, helium, nitrogen and chlorine.



A FALSE report concerning the death of King George was recently broadcast by Radio-Paris, a well-known Continental wireless station. The broadcasting station was rung up about eight o'clock by a person pretending to be one of the staff of the Havas Agency, who said that the agency had just received from London the news of the King's sudden death. Radio-Paris has an arrangement with the Havas Agency by which the latter telephones immediately any important news received, and the information was accepted at once as authentic. After the news had spread and the newspaper offices had been besieged by people asking for further information, the Havas Agency rang up Radio-Paris to ask the source of the information, and the hoax was revealed. Radio-Paris at once broadcast the fact that the information was false.

THERE was a state of ferment in the B.B.C.'s studios at Savoy Hill recently when a listener whose opinion carries weight telephoned to say that the bass notes were not coming through. A rushing hither and thither with hurried consultations in the control room, revealed nothing amiss on the technical side. Then somebody smitten with a brain-wave dashed to the studio in which a well-known "Auntie" was providing a pianoforte interlude. "Bass notes not coming through?" said the pianist. "No, of course not. That last piece was for the right hand only!"

THERE has been a very appreciable increase in Canada with regard to the turnover in radio sets and accessories during 1928 as compared with 1927, the business during 1928 being approximately 50 per cent. greater than in the previous year. The actual figures given in a statement by the Dominion Bureau of Statistics at Ottawa are roughly 12 million dollars in 1928 as against 8 million dollars in 1927. The greatest number of registered listeners are to be found in Ontario, close upon 300,000 being registered in that province at the early part of last year. The province of Quebec comes next with about 50,000, whilst, on the other hand, in some of the more remote territories the numbers of listeners are quite insignificant.

The possibilities of carrying education to students in schools by means of radio was recently discussed in Washington by a committee specially appointed for the purpose. Reports received from schools in Ohio and California in particular indicated that the use of radio in education has made rapid strides. Some communities in these States have equipped each school-room with receiving sets, making it possible to receive programmes educationally worth while whenever they

are being broadcast. It was also reported that many rural schools are being similarly equipped. As a result of a further discussion on the possibilities of radio education of adults, questionnaires have been sent out seeking information from seventy-three colleges and universities which own radio stations and which broadcast educational programmes.

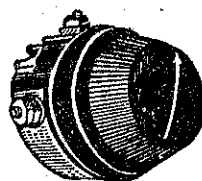
A VERY curious apparatus has been installed at the experimental short-wave station of the International Telegraph and Telephone Corporation at St. Cyr, France, intended to prevent telephony transmissions from being picked up by broadcast listeners. This apparatus has the effect of converting low frequencies into high frequencies and vice versa. A similar or converse arrangement is provided in the various receiving sets so that the frequencies are brought back to their proper values. If the transmissions are received upon an ordinary radio receiver they simply produce a succession of unintelligible screeches and low growls.

A RADIO directional device which may be actuated by signals received from a broadcasting station has recently been invented in America. This will obviate the necessity for the construction of special radio beacons, which, up to the present, have been necessary to accurately guide aeroplanes over regular commercial and

mail routes. If the apparatus is set in a plane and the plane should hover above the broadcasting station, the needle will point directly down to the ground. This indicator has been sold to the American Government and will be available to foreign governments and private organisations.

WITH highly sensitive instruments covering a wave-length range from 7 to 30,000 metres, the frequency monitoring station to be erected by the United States Government at Grand Island, Nebraska, will benefit approximately 20,000 radio stations. The first and only one of its kind, the station will serve as a check on frequency transmission channels. If the operator of a station finds that it is not operating on its authorised frequency, he may telephone the monitoring station and request that his frequency be checked or measured. The only cost to the radio station is the telephone toll. By doing this, a broadcasting station can be put right on its frequency and will be able to eliminate the heterodyne or whistle from the receiving set, directly benefiting the listeners. More than 600 commercial broadcasting stations, 2000 ship stations, all of the commercial transoceanic and transcontinental services, short line point-to-point services, 16,000 amateur stations and approximately 1000 Government stations will be able to avail themselves of the service.

A development of the principle of the radio beacon in a manner which would enable ships and aircraft to follow routes plotted out for them from hour to hour while en route is contained in an invention submitted to the French Academy of Sciences by M. Guillaume Loth. The invention, which is endorsed by the head of the French Army's wireless services, makes use of intersecting beams of Hertzian waves. When a vessel is likely to enter a stormy area the beam angles can be altered to indicate the safest route.



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N.Z. RADIO PUBLISHING CO., LTD.,
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WELLINGTON, FRIDAY, JANUARY 24, 1930.

THE SPORTING SERVICE.

THOSE sporting listeners who showed such concern over the adjustment of the sporting service given by 2YA will doubtless be pleased at the announcement that the Saturday night resume, which was the feature chiefly missed, is not to be abandoned, but is to be continued as before, except for a slight delay of 15 minutes. This adjustment in time is being undertaken because the Company has found that terpsichorean devotees dislike losing that part of their time taken up by the sporting announcement being given prior to 11 o'clock. With that generosity and recognition of the interests of others which characterises the sporting fraternity, we anticipate that no objection whatever will be taken to this adjustment. It will give the sports the satisfaction of securing the news chiefly desired by them prior to the closing down of the Saturday night service.

THE discussion that has taken place in our columns over recent weeks on this question has been of interest as demonstrating that there are two sides to the question. In the earlier rush of correspondence the sporting fraternity gave voice in no unmeasured terms to their dissatisfaction, and the casual reader would have been pardoned for thinking that there was no other side to the question at all. Later issues, however, showed that there was most definitely another side to the question, and several letters of weight and interest on that phase are given in our columns this week. The incident serves to show the catholicity of taste required to be served by broadcasting interests. All sections look for something of particular interest from broadcasting, and it is a recognised difficult task to adjust matters to meet the requirements of all. This incident illustrates in its field the special problems facing those arranging programmes. Continual attention is being given to this subject, and earnest efforts are regularly made from time to time by those responsible to discover the trend of public taste. One of the most comprehensive questionnaires on this subject was made recently by the Commonwealth Club at California. To 20 questions submitted by it, it received upwards of 4000 answers. A brief analysis indicates the problem facing the radio service and the need for a give-and-take policy on the part of all sections of listeners. Music was preferred to the spoken voice, but one-third of those replying wanted more talks, and two-thirds wanted more educational talks, and half wanted more radio drama. Saxophone music was

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put in the discard by being favoured by only 106 out of 4000 voters—85 per cent. of the voters preferred semi-classical orchestral music. Men's voices were four times as popular as women's voices—a sad reflection on the matrimonial state! 19 per cent. did not enjoy gramophone music.

THE answers to the question how radio programmes could be improved were widely diversified. One remedy was to "kill the announcer," and another was to broadcast legislative sessions. A special interest was shown in the rebroadcast of foreign programmes, and there was quite a desire for university extension programmes. Close analysis of the whole mass of suggestion, however, showed that there were no practical suggestions that were worth while that had not already been tried. It seemed to be easier to criticise existing programmes than to actually effect improvement.

Greatest Broadcast in History

Whole World makes One Audience

THE proceedings on Tuesday evening of this week, when the proceedings at the opening of the Naval Conference will be rebroadcast, not only in New Zealand, but throughout a dozen countries of the world, constitutes an outstanding event in radio history. On this occasion the largest single audience that has ever listened to any one event will be reached. The King will deliver the opening speech, after which the Prime Minister of Great Britain, Mr. Ramsay Macdonald, will speak. Thereafter the chief delegates of other Powers will speak in alphabetical order, except that Mr. Stimson, representing the United States, will follow Mr. Macdonald.

All New Zealand stations will be on the air for this occasion, and it is hoped that reception conditions will be such as to enable a satisfactory relay to be carried out. According to a British official wireless message, transmitters of the British Broadcasting Corporation, the Canadian Beam Wireless Service, the Trans-Atlantic Telephone and Continental Telephone Services will all be used to carry the Conference proceedings to millions of homes. From the London station of the British Broadcasting Corporation the speech will reach France, Germany, Italy, Norway, Denmark, Sweden, Hungary, Austria, and Czecho-Slovakia, relayed by telephone. Belgium and Holland will receive it from the Daventry Broadcasting Station and retransmit it. Australia, New Zealand, Japan, Finland, and the National Broadcasting Company of the United States will be served by a wireless relay from the 5SW experimental short-wave transmitter at Chelmsford. Canada will employ the Canadian beam transmission. The Columbian chain of broadcasting stations in the United States will use the Rugby Trans-Atlantic telephone service.

Overseas Rebroadcasts Wanganui Artists at 2YA

Chicago Heard Through 3YA

THE Great Lakes Broadcasting station, WENR, Chicago, which transmits on short-wave under the sign W9XF, has been coming into Christchurch very well lately. In fact, it is practically the best of all the foreign stations at the present time.

Station 3YA has several times taken advantage of the good reception conditions to carry out very successful rebroadcasts in the interval between the close of the news session and the commencement of the studio concert at 8 p.m.

LISTENERS-IN to 2YA next week will have the pleasure of hearing two artists well known on the Wanganui concert platform—Miss Dorothy Hughes-Johnson and Mr. Horatio Nelson. The former is a very clever violinist, the latter being an equally accomplished pianist. They have been engaged by 2YA for three evenings—Tuesday, Thursday and Friday. The duo will play sonatas by Franck and Grieg. Mr. Nelson will accompany Miss Hughes-Johnson in her violin numbers, and he will also play piano-forte solos. Listeners will be delighted by these two very artistic performers.

Charles Dickens**Birthday Commemoration
at 1YA**

LOVERS of the writings of Charles Dickens will note with pleasure that the birthday of that famous man, Friday, February 7, is to be commemorated by a special programme at 1YA. Mr. A. B. Chappell, M.A., will give a lecture and members of the Auckland Dickens Fellowship, of which he is president, will read excerpts from Dickens's works.

**"Corners" of the "Radio
Record"**

A CORRESPONDENT has asked for a definition of the different "corners" in the "Radio Record." They are as follows:—

Questions and Answers—A gratuitous service to readers who are in technical difficulties.

The D.X. Club—An "exchange" column, where readers who are interested in long distance reception compare notes.

Short-wave Notes—Mainly contributed by Mr. Sellens, of Northland, but items of interest are welcomed from all short-wave readers.

Our Mail Bag—Letters from correspondents representing their views on topical events, etc.

**Special Trans-Pacific
Broadcasts**

AN exchange contains the following paragraph in reference to a special broadcast service for long-distance listeners. It is predicted that these transmissions will be available in New Zealand and Australia, and though the present season is not conducive to long-distance reception, these broadcasts have probably been picked up by New Zealand DX enthusiasts.

In response to requests received from Far Eastern radio listeners, an early morning broadcast will be started for them in the near future over WGY's associated short-wave transmitters, according to a representative of the Schenectady station. The entertainment is to be put on daily, except Sunday, between 6 and 7 a.m. Eastern Standard Time, in the WGY studio. Such broadcasts will be heard in Eastern Australia at 9 p.m. the evening of the same day. Station W2XAF, which operates on the wave of 31.48 metres (9530 kilocycles) will carry the programme.

The presentations are to include news items, talks and music. In New Zealand and Australia the transmissions of the General Electric stations are said to be intercepted regularly, and rebroadcast frequently takes place over large networks, just as European programmes often are carried to listeners here by the transoceanic short-wave lengths. The hour adopted is said to be one most suitable for widespread reception in Australia and New Zealand.

2YA Sporting Service**Sporting Summary to be Given at 11 p.m.**

IN our issue last week we published a certain amount of correspondence in connection with the variation of the service given to sporting enthusiasts by 2YA. In that it was indicated that the Saturday night summary had been abandoned, but that there was a question of its being resumed either at the old time of 10.45 p.m. or 11 p.m. Sporting enthusiasts will be glad to learn from the letter from the Radio Broadcasting Company published below that the summary will be resumed forthwith, but that it will be given at 11 p.m., instead of 10.45 p.m., as in the past. The alteration of time is designed to avoid interrupting the dance programme customarily arranged for Saturday evening. The letter reads as follows:—

"In your article entitled '2YA Sporting Service' in last week's issue of the 'Radio Record' there appears to be some misunderstanding wherein you state that the Saturday evening 10.45 summary has been dropped, and that you understand from communication with the Broadcasting Company that the question of reinstating this service either at 10.45 or 11 p.m. is under review.

"We would advise that the Saturday evening sports summary has not been dropped, but is broadcast at 11 p.m., fifteen minutes later, so as not to trespass on the dance session.

"From a careful study of the position the Company finds that a large number of listeners have arranged dances on Saturday night, so as to take advantage of the special programme arranged by the Company, but in consequence of the innovation of the sports summary they have received only three-quarters of an hour instead of one hour as previously, and as is the case at our other stations. Arrangements have now been made whereby the summary of the main sporting results is repeated at the close of the dance session, or only 15 minutes later than hitherto.

"As stated in your remarks, the further summaries of sports are broadcast at 3.30 and 4.30 during the afternoon sessions, except when special relays are undertaken, and all available news and sports matter as far as practicable is broadcast during the 7 to 8 p.m. session, which has been primarily set aside for this particular purpose as the hour most suitable for the majority of listeners."

Weather Forecasts**Special Reports During
Harvesting**

AS was the practice last year during harvesting, special weather reports are being broadcast this year from 3YA and 4YA daily from 12.45 till 1 p.m. This service commenced on January 20 and will continue during the harvesting season.

The special forecasts are being provided by Dr. Kidson, of the Meteorological Department.

"Home, Sweet Home"

AN interesting story attaches to "Home, Sweet Home" (which is to be sung by Miss Ngaire Coster at 2YA on Thursday evening). This song had its origin in the form of a Sicilian melody by Sir Henry Bishop which was embodied in an American play. This play was completely lost when the manuscript was destroyed in the burning of the theatre in which it was being presented. The song "Home, Sweet Home" alone survived.

Relays of "Talkies"

ARRANGEMENTS have now been completed and the necessary technical equipment installed for regular weekly relays of items from the Majestic Theatre, Auckland. These relays will take place on Tuesday evenings.

Uncle George of 1YA

THE REV. GEO. COATS, who for the past couple of years has been a very popular "uncle" at 1YA, is leaving New Zealand this month for a period of a year, or longer. He will be greatly missed by the radio children of 1YA, who will wish him bon voyage and a safe return.

Relay from Taihape

THE thriving Main Trunk centre of Taihape will be given prominence throughout New Zealand on Sunday, February 9, on the occasion of the broadcast by 2YA of a concert to be given there by Queen Alexandra's Band, from Wanganui. The Wanganui bandmen have broadcast on previous occasions, and always presented a programme of supreme excellence.

Tennis Championships**Broadcasts by 2YA**

DESCRPTIONS of play in the New Zealand tennis championship meeting, which is to be held at Miramar next week, will be broadcast by 2YA. Mr. C. F. Williams will be the narrator at the microphone. The broadcasts will take place on Thursday, Friday and Saturday afternoons.

Flying by Night

NIGHT-FLYING pilots are enabled by a new device to switch on all the lights of an aerodrome below before landing. The pilot drops from a height of between 600 and 1000 feet an ignited flare. In a moment all the boundary lights, obstruction lights, and flood searchlights spring to life. The lights are controlled by a light-sensitive electric cell placed on top of a concrete pillar about three feet high within a triangle of coloured lights, showing the position of the landing ground. When within 200 feet of the cell the dropped flare causes a tiny electric current to pass.

The current is amplified in a series of relays, ultimately allowing a powerful current to travel through the aerodrome lighting circuit, and thus turning on every landing light. Once lit the lighting remains switched on till it is turned off by pressing a button, which also resets the relay and places the entire device ready for further use. The apparatus is the invention of a Spanish engineer, who is at present in London with the intention of bringing his device before the notice of the English aerodrome authorities.

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Flying Tuition by Wireless

Instruction from the Ground

A MOST interesting demonstration of a wireless system by which a flying instructor on the ground can still instruct his pupil, during the solo stage, and correct his errors while he is in the air, was given recently at the Heston Air Park in England. The chief feature of the wireless method of instruction control is that the timid solo pilot, or one about to commit mistakes, will hear the voice of the instructor just as if the latter were in the rear cockpit talking to the pilot through the ear phones; and it is considered important that the words of warning should come through the familiar channel.

The apparatus consists of a light-weight receiver fitted into the machine with a rigid aerial mounted from the wings to the tail. For the demonstration, a conventional transmitter, connected with a microphone mounted in a glass-sided room at the top of the Heston control tower, was used.

Two light machines were used for the experiment, and though a howling gale was blowing at the time, they executed without hesitation every order radioed to them by the watchers in the tower below. The demonstration was a convincing one of the efficiency of the communication, and it was linked with another addition to the wireless equipment of Heston Air Park.

Recently this airport became the first aerodrome to be provided with a ground installation which, with only half a kilowatt of power, will receive and transmit telegraphic and telephonic messages over a range of 300 miles. The London Terminal Airport has a much more elaborate and powerful equipment, but this set installed at sufficient municipal aerodromes in the country would provide a complete wireless chain for weather reporting. Its value will lie in facilitating the work of air taxi services and private charters throughout the United Kingdom, and once other airports are similarly equipped a pilot will be able to find out speedily the weather conditions anywhere ahead.

Correspondence to the "Radio Record"

WOULD correspondents kindly observe the following addresses to be used in writing to the "Radio Record"? Observance of these will save confusion and expedite replies.

1. General literary correspondence—"The Editor."
2. All technical correspondence—"The Technical Editor."
3. D.X. correspondence—"D.X. Club."
4. Business communications—"The Manager."

All correspondence to be addressed "P.O. Box 1032, Wellington."

WANTED AND FOR SALE.

For column of casual advertisements see page 32.

Rebroadcasting American Programmes

WITH the view to introducing diversity into New Zealand programmes and giving listeners the opportunity of hearing the class of radio entertainment broadcast in America, the Radio Broadcasting Company has finalised arrangements with the Great Lakes Broadcasting Company of Chicago for the special transmission on short-wave of typical American programmes. These transmissions will be made periodically and at times which will be suitable to New Zealand listeners. Atmospheric conditions permitting, rebroadcasts will be carried out by the New Zealand stations. These special transmissions will commence next Sunday evening, and rebroadcasts will be carried out by Station 3YA as an after-church concert. The results of the test will decide the action to be taken in regard to rebroadcasts by the other New Zealand stations.

Radio in U.S.A.

Opinions of Listeners

AS the result of vague murmurings of dissatisfaction with present day programmes in U.S.A., efforts have been made by means of comprehensive surveys to ascertain the public viewpoint. One of the most significant of these surveys, says an American magazine just to hand, is that recently made by the Commonwealth Club of California, since it represents an independent and unbiased attempt to learn the preferences of a typical cross section of a community of listeners. The conclusions are based upon four thousand sets of answers to a group of twenty questions.

Two-thirds of the replies showed that listeners think that there is something wrong with the programmes. More than half of them stated that they are constantly annoyed by radio advertising, although 86 per cent. admit that they are grateful to the advertisers and nearly half are led to buy through this medium. Music is greatly preferred to the spoken voice, only one-third of the audience wanting more talks, although more than two-thirds of the listeners want more educational talks and half of them want more radio drama. Saxophone music is wanted by only 106 out of 4000, of which 85 per cent. prefer semi-classical orchestral music. Men's voices received a four-to-one vote as compared to women's. One of the most surprising features in the poll is that only 19 per cent. do not enjoy gramophone music.

Fishing for distance still amuses 37 per cent. and 69 per cent. think that distance reception has improved during the past two years. Local reception has also improved in the opinion of 94 per cent. Many critics agree that there are too many stations and that they are too close together. The preference is 71 to 29 for chain programmes as compared to local. The great majority think that there should be no censorship of programmes. Proposed remedies run all the way from "killing announcers" to broadcasting legislative sessions. There seems to be especial interest in re-broadcast foreign programmes and in university extension programmes without advertising is by endowment of stations or by all sorts of special taxes.

Topical Notes

A FRIEND informs "Switch" that during the recent holidays he was the guest in a Maori home in the Manawatu, in which a first-class receiving set was installed. The members of the family took the greatest interest in every session of 2YA, which is their favourite station, and, unlike many pakeha listeners, they found entertainment and interest in every type of item, not forgetting the weather forecast and report. Grand opera was as popular as jazz. They were strong advocates for an increased day service from 2YA.

A PLEA for the repetition of records of "old time" popular songs from 2YA, Wellington, has reached "Switch." The listener urges that they find favour with both the younger and older generations, mainly on account of their tunefulness as compared with the latter-day American jazz. The records purporting to be representations of music-hall entertainments in which the audience joins with the performers, he says, are the best of these "old time" records, although the band performances of these items are quite good.

CABLES published in the New Zealand Press a few weeks ago stated that Major Trygve Gran, a Norwegian, denounced Commander Byrd for having, as the former alleged, exaggerated the difficulties of reaching the South Pole. The "Oakland Tribune" (California), recently to hand, states: "Commander Richard E. Byrd was among those to whom Floyd Gibbons's defence of the explorer's recent flight over the South Pole was available. Both short-wave transmitters connected with WGY Schenectady, associated with the National Broadcasting Company's broadcast Gibbons's programme, in which he characterised Major Trygve Gran, Norwegian, who criticised Byrd, as a mud slinger and violator of every principle of sportsmanship.

Yet while this audience criticises what is being done, it is able to offer no practical suggestions for worthwhile features that have not already been tried. It seems easier to criticise than improve. And the fact that only five per cent. say that they are "tired of radio" indicates that the present programmes are fulfilling a real need for home entertainment.

Projected Radiophone Service

From New York to Australia

IN view of the projected establishment of a wireless telephone service between New York and Sydney, the following account the "New York Times" writes of the initial test of the service:—

"It was October in Australia while New York still had several hours of September left, when the new round-the-world radiophone circuit of the American Telephone and Telegraph Company was switched into action. Ten New Yorkers took turns in talking with Australia through the standard desk telephone in the office of Dr. Frank B. Jewett.

"What day is it over there?" asked a voice in New York.

"It is October 1 here," was the reply.

"Well, we still have September with us," said a representative of the "New York Times," "and it is raining in New York."

"It is 6 o'clock in the morning in Sydney and a fine morning," answered the Australian.

"Have you had your breakfast yet?" asked the New York man.

"No, it's an hour and a half too early for breakfast," said the voice from the other side of the earth.

"The circuit you are talking over," Dr. Jewett explained, "is about 15,000 miles long. It runs from New York to London via a short-wave channel, then on to Australia. The wave employed depends upon the weather. One may speak over the fifteen-metre wave and the next speaker switched to twenty metres, all depending upon the atmospheric conditions. From London to Australia still another short wave is utilised, and its length also depends upon the weather conditions.

"This test is merely to show what is being done to extend world-wide communication. It does not mean that a regular radiophone circuit will be opened yet to the public for conversations with Australia. Much depends upon the British Post Office, which controls the English end of the circuit. It requires about thirty seconds to put the call through to Australia, yet the fourteen hours difference in time is an obstacle to the service."

An engineer called attention to the fact that the voices travelled across the Great Circle route in their jump from autumn in New York to spring at the Antipodes.

When the conversation ended the New Yorkers said "Good night," and the voice at Sydney answered "Good morning."

Beauty Talk from 2YA

AT 3.30 p.m. on the 30th January, Miss Flora Cormack will deliver a lecture from 2YA on "How Film Stars Keep Their Beauty."

"N.Z. Radio Listener's Guide?"

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Broadcasting News of the Week in Photographs



Filtering the Ether.—Dr. James Robinson, with his mystery wonder box, known as the Stenode-Radiostat system, which may prove one of the most important wireless discoveries of recent years. It is claimed that with its aid a wireless set can eliminate all interference, no matter from what source they come, and that it will enable 5000 stations to operate between the wavelengths of 300 and 500 metres.

—Central Press, photo.



MRS. R. S. ALLWRIGHT

Is a soprano soloist well known in Wellington musical circles. She has been heard both in solo work and concerted numbers with the popular Melodie Four male voice quartet.

—S. P. Andrew, photo.



MR. K. AITKEN,

Elocutionist, of 2YA.

—S. P. Andrew, photo.



MISS MONICA MALFROY,

Mezzo-soprano, of 2YA. She studied singing both in New Zealand and in England, and sings with feeling and expression. She has specialised in songs of a classical nature.

—S. P. Andrew, photo.

Radio as an Aid to Aerial Navigation

IT is scarcely five years since commercial aviation emerged. To-day it is becoming a definite part of our transport system both for light freight such as mail and express and for passengers. Already over 5000 'planes are daily in the air on commercial business. But before there can be commercial success there must be two certainties, safety and regularity of service. The radio now assures us a large measure of both.

To be able to fly with certainty by night, to pilot through or avoid fog and storm can in large measure be made certainties if constant communication can be maintained between the ground and the 'plane—and radio provides the missing link for just that communication. In fact, the development of radio applied to aviation assures just that margin of safety and regularity which gives the 'plane a definite position as a regular and safe means of transportation. It thus makes commercial application of aviation a certainty. Prior to the application of radio communication with the 'planes, there was no certainty of regular service; there was great danger from hazards of storm, fog and snow.

There are, generally speaking, two sorts of flying going on to-day—one is for pleasure and sport, while the other is commercial transportation. Pleasure flying, like picnicking, can be put off if it is a bad day, but the regular scheduled operations of the air transport companies must go on day in and day out. Both kinds of flying will be aided by radio, but it is commercial transportation that is becoming vitally dependent upon it.

The pilot of a regularly scheduled 'plane must know two things. First, he must be able to keep track of constantly changing weather conditions that are beyond his range of vision, and sec-

THOUGH the advisability of carrying radio equipment in aeroplanes engaged in long-distance "stunt" flights has often been questioned, it has been found that commercial aviation is rapidly becoming dependent upon radio communication as a means of securing navigational assistance. This is supplied by the use of direction-finding receivers which are actuated by signals received from automatic radio beacons erected en route. In view of the greatly increased interest recently manifested in aviation by the New Zealand public, the following outline of the important part radio plays in materially reducing the risks usually associated with aerial travel should prove interesting.

and, he must be able to locate his exact position, even though the ground may not be visible. Furthermore, he must be able to get this information or any other aid he may need at any moment he may desire it.

This, briefly, is the task that radio must perform in aviation. If the pilot is to receive weather information and be able to talk with those on the ground, there must be a series of radio stations along the airways, and if these stations are to be useful they must have a complete weather observing system to draw upon. It is not, therefore, merely a matter of putting a radio set on each 'plane, but a large and complicated organisation of ground radio stations, weather observers, and airports must be tied together with some quick and dependable method of communication and made to function together smoothly as a unit.

MUCH of this information and service should be available to all flyers, whether they are private individuals or large transport companies. The Government has undertaken to provide the service, and it has been a tremendous help to all branches of aviation. A series of 2000-watt broadcasting stations using wave-lengths of about 1000 metres have been erected along the principal airways in America, each located two or three hundred miles apart. Once an hour, or more often, they send out weather reports collected along the

route, together with landing conditions at each of the airports in their vicinity. This service is free for anyone who cares to tune in for it, and although intended primarily for aviation, many other people will undoubtedly use it.

THE large transport companies who maintain daily schedules over their routes must be able to carry on two-way conversations with their 'planes wherever they are in flight. Obviously the Government stations which broadcast weather reports cannot be expected to keep in contact with the large number of commercial 'planes that will soon be flying near them.

The transport operators have therefore found it necessary to establish their own ground stations, along the particular routes which they fly. By pooling their equipment at places where they overlap, and placing as many routes as possible on the same channel, the best possible use will be made of the limited number of wave-lengths available.

We can confidently expect to see, within the next year, a majority of the commercial 'planes equipped with two-way radio telephones. Every few minutes they will call their own stations on the ground, and reassure them as to their position, probable time of arrival at the next stop, gasoline supply, or to inquire for special weather reports or other information when necessary.

In an emergency the passengers may be able to talk with any part of the country by a combination of radio and land telephone wires. The pilots will be able to pass on to each other the latest information regarding the weather they are flying through and thereby check and supplement the observations from the ground.

THIS fulfils the pilot's first requirement in regard to the weather information. To meet the second need and enable the pilot to locate himself, still another radio device has been perfected. This is the radio beacon. These

stations are located about two or three hundred miles apart, and are located at the principal airports along the route. They send out a directional beam in such a way that the pilot, using the same receiver with which he picks up the weather broadcasts, can tell whether he is exactly on his course, or to the right or left of it.

On the right of the course the transmitter sends out a certain repetition of dots and dashes, while on the left it sends out a different combination. If an aeroplane is exactly on its course the two signals blend into one long dash, and the pilot knows that he is still on his route, although he may be able to see nothing. As soon as he gets slightly to one side or the other, the signal tells him which way to turn.

AT important points along the airways small marker beacons with a range of only five miles have been installed. They are like invisible bell buoys leading into a harbour, and from them a pilot is able to judge how far he has progressed along his course.

TO many people these facts may seem fantastic, but to those in the aviation business it is an assured fact. There are undoubtedly other developments yet to come. Within a short time Governments will require radio on commercial aeroplanes just as many now require all ocean liners to be equipped before they can leave port. In fact, radio will be even more important in aviation than it is in shipping, because a boat, rarely travelling at over twenty miles an hour, can ride out a storm or anchor off port almost indefinitely, while an aeroplane must travel at over a hundred miles an hour, and must find its airport immediately.

It is just 25 years since the Wright brothers made their first air flight, and at this same time Marconi was transmitting his first feeble signals across the Atlantic by radio. Few people would have imagined that a combination of these two great discoveries would give to us a great arm of commercial transportation—aviation.

WANTED AND FOR SALE.

For column of casual advertisements see page 32.

Big Railway Concessions

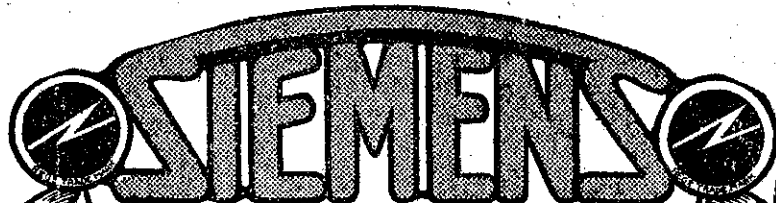
For Picnic Parties

Happy indeed are the memories associated with that popular institution, the "picnic train"—sunshine, happy faces, and joyous laughter.

Here are a few examples of the remarkably cheap return fares for picnic excursions arranged by schools, business houses, friendly societies, trades unions, etc:—

	CHILDREN (up to 15 years)	ADULTS
9 to 12 miles 7d.	1/3
21 to 25 miles 1/-	1/10
46 to 50 miles 1/11	3/3

Communicate with the nearest Stationmaster, Business Agent, or District Manager for full particulars.



SIEMENS
DRY BATTERIES

Sole N.Z. Agents:
Messrs. CORY-WRIGHT & SALMON

ENGINEERS
P.O. Box 1650, Auckland.
P.O. Box 1230, Wellington.

Children's Sessions

AT 1YA.

TUESDAY, JANUARY 28.—Stories, jokes, and Birthday Greetings from Uncle George, and cousins giving solos and recitations.

WEDNESDAY.—This is the last week of Uncle Tom's holiday, so we will look forward to hearing him next Wednesday in his very cheeriest style.

THURSDAY.—Peter Pan will have further tales to tell of his adventures at the Scout camp, and Cinderella will have catches and puzzles for Peter Pan to answer.

FRIDAY.—Nod and Aunt Jean on deck—listen for Aunt Jean's verses and see what she has to sing about to-night. Nod is sure to have some jokes and jolly stories.

SATURDAY.—Cinderella will talk to the kiddies about all sorts of things this evening, and Miram will play the piano, also there will be some favourite records.

SUNDAY.—Children's Song Service, conducted by Uncle Leo, assisted by Pitt Street Methodist Sunday School.

AT 2YA.

MONDAY, JANUARY 27.—Cousin Joyce will be here to-night, and will play on the piano and vibraphone. Cousin Betty will recite Uncle Jeff will give the Birthday Greetings.

TUESDAY.—Little Cousin Meryl will sing three delightful songs, each one about something you like, and Cousin Theo will bring some girls and boys who will recite, play and sing. Uncle Jim will give you Birthday Greetings.

THURSDAY.—On this night you are going to hear Cousin Eve sing some of her delightful songs, and then Cousins Joyce and Maurice are going to play the violin and the piano. You will also hear Cousin Eunice and Flora in such nice things. Uncle George will send you Birthday Greetings.

FRIDAY.—Brother Jack will entertain you and send you Birthday Wishes to-night. Then Cousin Elsie and Cousin Hilda will give you such an interesting little concert with lots of songs and recitations.

SATURDAY.—Cousin Betty is coming to recite, and then Cousin Patricia will sing two favourite songs. We also have Cousin Roma, whom you have heard before, giving you three most interesting items. During the evening Aunt Molly and Uncle Toby will greet the birthday children.

SUNDAY.—Uncle George will conduct the Children's Service, and will be assisted by cousins and friends from St. Mark's Church.

AT 3YA.

MONDAY, JANUARY 27.—5 o'clock to-night, comes "Scatterjoy" again, with tales of journeys abroad. Cousin Kathleen with new songs for little listeners.

WEDNESDAY.—Uncle John's cheery voice is heard in stories for the children, and Cousins Muriel and Pat help to entertain you for this bedtime hour.

THURSDAY.—Is Uncle Frank's night at the microphone, and with songs

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.

AS a number of unsigned letters have reached us lately, we wish to advise the writers and others that such efforts represent wasted labour. Letters must be signed as evidence of bona-fides, but nom-de-plumes are permitted. If false names are given the result is the same as if no name had been given. The desire for anonymity seems to have a relationship with the strength of the writer's views on certain topics. While our columns are open for fair expression of views and criticism of anything connected with radio, we will not consciously provide cover for splenetic snipers, who, if desirous of publicity, are advised to both modify their language and sign their names. It is also not advisable for the one individual to send in several letters under "aliases."—Editor.

Sports Service.

THE disappointment felt locally at the curtailment of the sporting service from 2YA is very keen, as numerous listeners from this district make a practice of tuning in 2YA on Saturday evenings at 10.45 for the daily results. We will never forget the splendid service provided listeners by the 2YA when the English cricket eleven toured Australia last year.

It is a great pity that the company has decided on curtailing this service, for they have worked it up from practically nothing, and it was until recently one of the bright features of 2YA.—F. Herrou (Oamaru).

Other Points of View.

I NOTICED, with some disgust, the many listeners protesting by letter in your last week's paper against the partial discontinuance of the announce-

and stories he keeps you interested and amused.

FRIDAY.—Storyman is bringing the gramophone along this evening with a host of new records. And he tells us stories that we don't soon forget, about the Woods and Nature, and all the lovely animals in the wilds.

SATURDAY.—This is the time that Mr. "Chuckie" says "Hello" to you all again. Have you ever heard the "Teddy Bear" songs that Christopher Robin's father wrote? Well, listen to Chuckie singing them to-night, with Aunt Pat helping with the music.

SUNDAY.—The Children's Song Service, conducted by Rev. Rugby Pratt, assisted by the children from the Methodist Sunday School.

ing of racing results. Should these few so-called sports in any way induce the R.B.C. to reconsider their decision I would urge the latter to adhere to the course they have so wisely adopted. I say wisely, because even to the usual listener, their action is justifiable and praiseworthy. Have you, Sir, ever paused to consider the underlying motives prompting the letters of protest? I will endeavour to outline a few. Perhaps only one person in ten thousand in New Zealand is interested in horse racing, solely and undeniably as a sport. By this I do not mean to imply that every follower of race meetings all over New Zealand is prompted wholly by avaricious desire to enrich himself beyond his wildest dreams. Not at all. I have mentioned previously the percentage that are not. Again, such people must lay their bets with bookmakers, and thus render themselves liable to prosecution. Do the broadcast stations of New Zealand realise that they are, although legally, aiding these illicit practices? Again, I have often heard announced from 2YA the names of horses likely to run well at an impending race meeting. What effect will this have on the youth of the country? Surely this practice is so obviously out of keeping with the usually high moral tone of broadcasts emanating from the New Zealand stations, as to render further comment unnecessary?

To mention another point—when listening to some of the really good musical entertainments provided by 2YA during the afternoons, it is very annoying to have a record such as Beethoven's "Moonlight Sonata" spoilt by an announcement at its conclusion concerning the winner of the fourth race

at Kaitangata. If the result must be given, once a day is quite sufficient. In conclusion, I hope my protest will have some slight influence in the ultimate realisation of a broadcast service expunged of everything likely to prove derogatory to the morals of New Zealand.—"Pro Bono Publico" (Petone).

KINDLY allow me space to endorse the remarks of correspondents in this week's issue of the "Radio Record" concerning the sports service given by 2YA during the holidays. As a South Island listener, I can assure the company that the summary was greatly appreciated by us all down here, and the time for its presentation on the air (10.45 p.m.) was most suitable. I have closely followed the 2YA's sporting announcer's reviews and information now for several months, and I will tell the world "he can deliver the goods." One pleasing item in the "Radio Record" is that 2YA will broadcast results of the Wellington meeting. We hear music everyday, the same old announcements, soprano solos, orchestral selections, baritone solo, etc., until one gets sick of it. Sporting news is eagerly awaited by hundreds.—"Majestic" (Oamaru).

IT appears that those interested in racing results are desirous of running 2YA, and they seem to think that the sole object of the station's existence should be to give such results. The term "sporting" as they use it, is intended to indicate that they want results of all kinds of sport. But there is only one kind of sport for those who want the racing results. The threat to discontinue listening if racing results are not available is mere bluff, because once a person becomes used to listening-in it will take more than that to make him discontinue. No exception is taken to the broadcasting of results, but they are not more important than music except to those who have their money on; results are wanted quickly by only the smaller majority of listeners; dissatisfaction is not general in this respect. Dissatisfaction is evident, however, in regard to Wellington's silent day, and the quality of the broadcasting of the dinner music. It is high time that the silent day was eliminated. If not, then 1YA's and 3YA's power should be increased to at least 1000 watts. And we should have a small orchestra to play dinner music. The records are either mostly old ones or they are not properly transmitted. Surely with 50,000 licenses, a small orchestra could be engaged.—I am, etc., "P.H." Palmerston North.

ROGERS is RADIO at its best

Five New 1930 Models.

Sole N.Z. Distributors:

A. R. HARRIS COMPANY LTD.

200 GLOUCESTER STREET :: CHRISTCHURCH.

Applications are invited from Responsible Dealers where not represented.

Identification Wanted

COULD any member of the D.X. Club furnish me with the call-sign of an American station which was on the air from about 8.30 p.m. to 10 p.m. (when I closed down) on Wednesday, January 8. This station was operating just above 2YA's harmonic, which is given as being 208 metres, 1440 kilocycles. I get this harmonic on a reading of seven (0-100 dial). The American station sought was on dial reading eight, wavelength approximately 212 metres (1410 k.c.). We couldn't get the call, which was frequently given, but the following items were plainly heard: "Just a Little Love, a Little Kiss," followed by a soprano item, then an orchestral number, which was followed by "Piccolo Pete." At this stage the station was coming in stronger and we heard the following announcement, which was given out before each item, more plainly: "This is a test transmission of station (sounded like WJKN) testing their new transmitter from the Engineers' National Bank Building." The announcer then proceeded to read out what appeared to be telegrams received by the station reporting on transmission. The name of a Miss Pickard was mentioned, also a Mr. Chaytor, of 1814 Westminster Street. Someone from Ontario (Canada) was also mentioned, but the call of the station and the town where it was situated were always marred by static. However, just before closing down, we got "This is Station WB—." Later in the evening the station became weaker, so at 9.55 o'clock I gave up. If I can get this station's call it will add another to my log, which now totals 51 stations.—H. D. Hunt (Nelson).

[Probably WHK, Cleveland, Ohio, operating on 216 metres (1390 k.c.). Power, 1 kw. Refer to D.X. columns in last week's issue of "Radio Record."—Ed.]

ON January 5, 1930, I tuned in a very distant station on 240 metres, at 3 o'clock a.m., playing records: first, "Sonny Boy"; second, "Wedding of the Painted Doll," and following that an orchestra playing several jazz tunes. There was very little static, although fading was bad. I could not catch announcement of station, but could hear quite plainly the announcer apologising for the absence of some record. I am quite positive it was not an American, as the accent was good English.—Universal Five (Ladbroke).

ANOTHER three stations for D.X. enthusiasts to identify. Sunday, January 12, at 6.10 p.m., on 945 k.c. approx. (317 metres), I picked up a station at fair speaker strength, though slight fading made volume vary. The following items were heard:—"Smiling Irish Eyes" and the other side of the record, containing the songs sung by Helen Clark. Then two Wurlitzer organ solos, followed by "Shine, Little Glowworm," and a violin solo medley, containing "Annie Laurie" and "Auld Lang Syne." A saxophone band item was also heard. During the whole time I was listening to this station I heard no announcement, but a ticking sound very like a metronome was heard. Monday, January 13, at 8 o'clock

p.m., on 715 k.c., approx. (420 metres), the following items were heard:—"Shine, Little Glowworm," an orchestral item, followed by an announcement, unidentified on account of static bursts. Also "Sweethearts on Parade" and "Where the Shy Little Violets Grow." Several other items were also heard, but though volume was fair to good, 2YA marred the best reception by occasional spreading, especially when coming out of a fade. While 2YA was fading this station was at its best, but static, in violent bursts, prevented any speech being heard. Could this be KFVD? This evening, January 15, on 840 k.c., approx. (357 metres), from 6.45 p.m., a strong carrier wave, but no speech or music was heard up to 8.40 p.m. This is well separated from 2BL, Sydney, and is on one of the Japanese stations' wave-lengths. Could there be any connection between my station on 715 k.c. and the one heard by D. McLaughlin (Karori), after 2YA closes down?—Arthur E. Allen (Avondale).

[As Mr. McLaughlin does not mention the approximate frequency of the station received, it is impossible to identify same unless you are able to recognise the items he mentions as coincident with those you receive.—Ed.]

ON Saturday (11/1/30/), at about 7.57 p.m., I tuned in a station which sounded like an American. This was on 860 k.c. (348 metres), or on 0-100 dial, was on 39. I receive a Japanese station on this reading, and also receive 1YA, Auckland, on 37. I was just in time to hear the announcer say "Good morning," just as they say "Good-bye" in the American talkies. After playing a short piece of music they closed down. On Sunday I tuned into two stations. The call of the first I took to be KOIM, but later found it was KOIN, Portland, Oregon. The announcer said they were broadcasting on 940 k.c. (319 metres). The other was KGM on reading 51. This would be about 775 k.c. (386 metres). On looking up the call book I find there is no station using this call. They were reading telegrams from all parts of America complimenting them on their programme. I am positive of this call being KGM. Did any other listener hear this station?—J.T.S. (Napier.)

Stations Identified

I SEE someone has logged a station with a call IFC or IZC on January 4. Would it be the new Hamilton station 1FP? This station should be found any time now, also 4ZI, Invercargill. What wave are these stations and time of broadcasts? Could any listener give same through the D.X. Club? KBCA is coming through well now on 1430 (kil.). Has any listener logged this station? My log is now 95 stations and 72 verified.—S. Ellis (Okato).

THE D.X. CLUB

Views and News.

RE "Westrad's" inquiry re 3LG, Newport. On same date and time I tuned in Newport station KOG and held this station for quite a while. I distinctly heard lady announcer say KOG, Newport. Strength of signals R3. Probably this is the station that "Westrad" heard. I have sent for a verification card. My set is a three-valve kit set. Signals received on loud-speaker.—Cessor (Dunedin).

IN reply to "Westrad's" inquiries re the Japanese stations, I would like to state that the station a fraction under 3LO (not 2LO) is JOCK, 810 k.c. (370 metres). The one below 2BL is JOAK, 870 k.c. (345 metres) the one below 4QG is JOHK, 770 k.c. (389 metres); and that below 2YA is JOBK, 750 k.c. (400 metres). I have not logged the latter station yet. I logged five Japanese stations on Sunday, January 5—JOAK (32 on the dial), JOIK (36), JOGK (40), JOCK (38), and JOHK (42). As my dial seems to be the same as "Westrad's," this may be useful for him. There is another Jap, too, that I have not received yet, JOAK, 850 k.c. (353 metres). Have any listeners noticed the good female singer from JOHK, singing songs such as "Old Folks at Home," all in Japanese?—M.B.S. (Palmerston North).

DX Topics

English from Jap. Stations.

IN yours of January 10, "Universal Five" (Ladbroke) asks if any listener has heard plain English from Japanese stations. Although I have often listened during the last three years to six of these Japs, only on two occasions have I heard English spoken, the latter being when listening to JOHK (Sendai), a lecturer evidently giving a lesson in English to Japanese listeners. The lecturer would speak a sentence of English and then (I presume) pull it to pieces in Japanese, as he used most of the English words separately in Jap. sentences as though explaining their meaning. This was at 9.45 p.m., November 22 last. There was an entire absence of static; volume as usual from this station was ample loudspeaker, and the lecturer's English was good. I can't answer for his Japanese. The other occasion was from JOGK about a week previous, a lecturer talking on world affairs all in English, but static was too fierce to allow of this being followed in comfort, so I left it to him.—John Luke (Clevedon).

WTIC Changed Frequency.

LAST evening (January 9) I received station WTIC with excellent volume at 5 past 11. After 12, however, it became weaker. In "Radio Record," December 20, 1929, you have WTIC power 250 watts,

metres 500, 600 k.c. Since this they have changed their frequency, because I distinctly heard the announcement, "WTIC, Hartford, Connecticut, transmitting on a frequency of 1660 k.c. operating on a power of — watts, operating continuously for 24 hours." I am not sure of power. Has any other listener heard WTIC on 1660 k.c.?—John I. Bilton (Cromwell).

WTIC on 24-Hour Programme.

LAST night (January 9) I heard WTIC broadcasting a 24-hour request programme. I heard a request from Nova Scotia and another from Pennsylvania. The volume and clarity were excellent on the loudspeaker, the speech and music being heard comfortably with the volume control not quite full on. A slight fade was evident, but this disappeared about 9.30.

I also wish to report reception from station WHK, Cleveland, Ohio. I heard this station best on January 4, with plenty of volume, but a sharp fade. I heard the announcer say that the station was experimenting with the sound of the human voice over the radio and the telephone, the microphone acting as a 'phone mouthpiece as well.

Station WTIC, Connecticut, is the most distant station I have got yet, being about 100 miles further than New York.

This evening, just before 8 p.m., I heard items from WENR, Chicago, on a wave-length of about 303 metres, as well as on WENR's usual wave-length of 345 metres. The reception on 303 metres was astonishingly loud, but there was a rapid fade. I heard the announcer say, "WENR and W9XF." The next item was "The end of the day," which I received on both frequencies. Would this be another station relaying? If not, perhaps it had something to do with 3YA. At 8 o'clock 3YA came on the air, and that spoilt my chances of finding out what this station was. Perhaps "Switch" or some other listener can explain this phenomenon.—"New Chum" (Morrinsville).

[This might have been 3YA testing before its time to broadcast.—Tech. Ed.]

Australian Stations.

I HAVE noticed several times recently, and especially in this week's "Record," reports concerning bad reception of the Australian stations by "Switch." Well, almost any night from 10 o'clock on I can pick up 2FO, 2BL, 3LO, 4QG, 5CL, 3AR, 7ZL, and several of the smaller stations. On New Year's Eve I listened to the celebrations from the YA stations, and then about ten of the Australian receptions on that occasion being particularly good. The set used is a home-made four-valve.—L. G. Wainwright (Invercargill).

Japanese Stations.

IN reply to "Westrad" (Woolston):—A list of Japanese stations which I have heard operating from 9.30 p.m. until early hours in the morning is as follows: JODK, Kujo, 345 metres (870 k.c.); JOFK, Hiroshima, 353 metres (850 k.c.); JOCK, Nagoya, 360 metres (830 k.c.); JOIK, Saffaro, 361 metres (830 k.c.); JOAK, Tokio, 376 metres (800 k.c.); JOGK, Kumamoto, 380 metres (790 k.c.); JOBK, Osaka, 386 metres (775 k.c.); JOHK, Sandai, 396 metres (760 k.c.).—Universal Five (Ladbroke).

LOUD clicking heard by listeners when listening to "outside" stations during windy nights will generally be found to originate from flickering street lights. A Wellington electrician recently examined the cause of this street-light flickering, and he found that it is not always due to the street globes being loose in their sockets. He says that breaks in the few feet of wire which connect the globe sockets to the street mains are a frequent cause of the flickering of the lights. These down-leads shake in strong winds and hidden breaks in the wire "make and break" the circuit.

THE latest American mail brings news that Frances Alda, the world-famed prima donna, formerly of New Zealand, sang in the grand opera "La Tosca," broadcast throughout the United States by the National Broadcasting Corporation network. Gennaro Papi, the distinguished operatic conductor, wielded the baton on the occasion of this studio production of "La Tosca." It is rather a pity that the atmospheric conditions preclude reception in New Zealand of KGO, Oakland, California, which some four years ago was heard by hundreds of New Zealanders. KGO relayed "La Tosca" on the occasion mentioned.

IF atmospheric conditions are favourable on Sunday night, January 26, New Zealand listeners with efficient sets will have an opportunity of hearing Miss Gladys Moncrieff, the noted Australian musical comedy "star," from 2FC, Sydney.

MADAME IRENE AINSLEY, the New Zealand contralto vocalist, will sing at the Sydney Town Hall on Thursday, January 23, at a concert which is to be broadcast by 2FC, Sydney. Her items will be the following excerpts from "Samson and Delilah": "Oh, Love from Thy Power" and "Softly Awakes My Heart." Madame Irene Ainsley is a pupil of Madame Marchesi, who wished to adopt her as a daughter, and also of Dame Nellie Melba, who accompanied her at her first concert at the Wigmore Hall, London. She knew Caruso personally and has sung on concert tours with many world-famous celebrities. Among them were Mischka Elman, Puccini, John McCormick, Backhaus, and others. She has sung in all the greatest cities of the British Isles with the Casstelina Opera Company, the Carl Rosa Opera Company, and the Joseph O'Mara Company. She has also sung before Royalty over a dozen times. For a quarter of a century she has been one of the most notable figures in British operatic circles and still retains her wonderful voice in all its richness. She is on a holiday in Sydney.

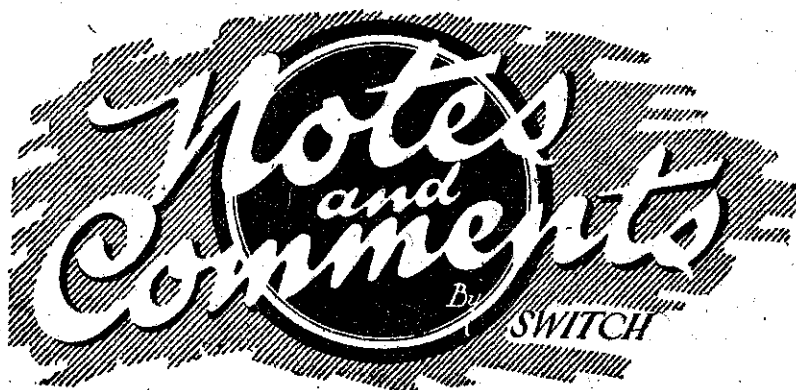
RECENTLY, from David Sarnoff, executive vice-president of the Radio Corporation of America, the U.S.A. Government Radio Commission heard a detailed explanation of the ramifications of the company, its cross-licensing agreement with radio receiving set manufacturers, and a candid admission that the company does hold a substantial monopoly of radio patents. And the committee rather liked it, for the operations of the company, which long have been complained of as a stifling monopoly, were explained in such a manner that even Senator Dill, Democrat, of Washington, who has led

the fight against what he calls the "Radio Trust," admitted that it wasn't so bad after all. Both General Harbord and Sarnoff denounced "irresponsible criticism of the R.C.A."

THE deep-sea yacht race from Melbourne across Bass Strait to Launceston, which was won by the Oimara, was notable, as it was the first occasion on which wireles transmission was effected from one of the competing yachts. A young Melbourne amateur transmitter accompanied the yacht and operated on a wavelength of 85.2 metres with crystal control and a 10-watt transmitting valve. He used a generator to deliver 50 watts output at 500 volts. The yacht encountered a terrific gale in Bass Strait, and heavy seas swamping the cabin, the transmitting plant (which had kept the Press informed of the progress of the yacht) was put out of action. Now, what about our Wellington amateurs selecting a representative to emulate the Melbourne amateur's example on the occasion of our annual deep-sea yacht race across Cook Strait?

THE Australian stations have continued of late to be mere shadows of their former selves. Whatever it is, the cause of this weak trans-Tasman reception has been a protracted source of complaint among New Zealand listeners. The weather, too, has been abnormal, and the sunspots, if responsible for the trouble, have had a world-wide influence on meteorological conditions. The liner Tainui, which arrived at Wellington lately from London, experienced extraordinary weather all through the Tropics. People who care to sit up till after midnight may receive two or three stations across the Tasman, but they are scarcely worth the trouble.

"WHISKER" (Te Aro) says that his crystal set is not giving as loud reception of 2YA as it did about 12 months ago; in fact, it has been steadily decreasing in volume during the past three months. "Whisker" does not state the type or nature of his crystal, but the trouble may be rectified by scraping the surface of the crystal with a clean knife to bare a new surface. The crystal must not be touched with the bare fingers; a pair of clean pliers or pincers should be used instead. The tip of the cat-whisker should be snipped off with a pair of scissors and the wire tip brightened with a rub of fine glass paper.



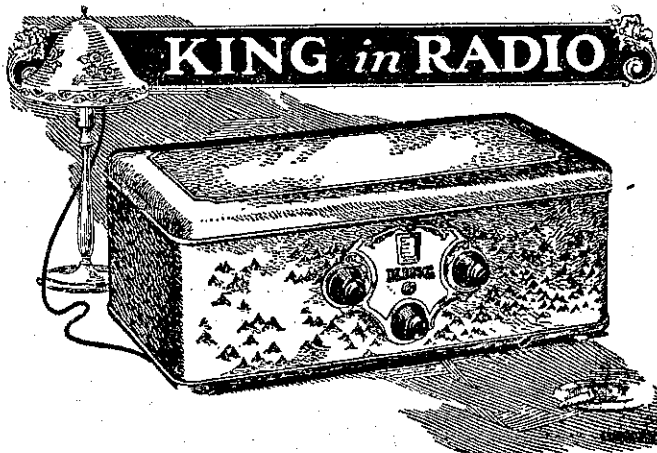
ago. They agreed that it is impossible to please everyone, but they thought that it would be difficult to find anyone in favour of a whole night's relay from the circus.

RECENTLY a local radio enthusiast voiced a protest against the inclusion of dance records, with a vocal refrain, from 2YA. He considered that these vocal refrains were "trashy." "Switch" subsequently took the trouble to visit various gramophone dealers to ascertain the public tastes on this very subject, and in every case was informed that buyers of dance records consistently ask for those with vocal refrains, and that a dance record which has no vocalisation must be particularly good before the public will touch it.

HOW different are things connected with radio set selling to what they were some five or six years ago! A Wellington dealer was commenting upon the boon the a.c. set is proving to the "trade" from a "servicing" point of view. "In the old days," he said, "we had to teach purchasers how to tune their sets. Some picked up the idea in half an hour, but many had to have two or three hours' tuition. Then they had to be taught how to connect up their batteries, and the mysteries of 'plus' and 'minus' had to be explained. Then the method of recharging batteries, information concerning care of same had to be imparted. Now we install a set, and in a quarter of an hour, at the most, a purchaser of even the meanest intellect learns all that is necessary."

THE recent broadcasting by 2YA, Wellington, of the ringside description of the performance of Wirth's Circus has aroused a miniature storm of controversy. The general opinion is that the thing was rather overdone, and that only two or three of the best acts should have been described. "Switch" happened upon a group of local radio enthusiasts who were discussing the subject only a few days broadcasting.

NEW ELECTRIC SETS



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Next Week's Features

1YA Features

THE Rev. Lionel B. Fletcher will be the preacher at the Beresford Street Congregational Church on Sunday evening, when the service is to be broadcast. The relay of a concert to be given in Albert Park by the Auckland Municipal Band will follow.

ON Tuesday evening the 1YA Orchestral Octet, conducted by Mr. Eric Waters, has included among their numbers musical comedy selections from "The Beauty Prize" (Kern). A further number to be rendered by the Octet will be "The Maid of Orleans" (by Rawlinson). The Clarion Trio will be singing some delightful musical comedy numbers, including excerpts from "Going Up" and "To-night's the Night," also "The French Maid." Miss Phyllis Gribbin (contralto) will make a welcome reappearance to the programme of 1YA and will sing "Softly Awakes My Heart," from "Samson and Delilah," and "O Ship of My Delight" (Phillips). The programme for this evening will conclude with a review of the latest gramophone recordings by "A Commentator."

AT 7.40 p.m. on Wednesday evening Mr. Norman Kerr will give a further interesting talk on "Physical Culture." In the studio concert the instrumental section of the programme will be rendered by Mr. Reg. Morgan and his orchestra. This combination is always very popular and has a number of delightful items to present. Violin and xylophone solos will be played by members of the orchestra and Mr. Morgan will himself be heard in baritone solos. Madame Mary Towsey's Quartet will sing "Eileen Alannah" and "Carry Me Back to Old Virginny." Solos will be sung by the members of the quartet, and Mr. Cyril Towsey will play the favourite "Sonata in C Sharp Minor" (Beethoven), which is better known as the "Moonlight Sonata."

AT 7.40 p.m. on Thursday Sir George Richardson will speak from 1YA, under the auspices of the League of Nations Union, on "Peace." The "Radio Scamps" will again go scampering and listeners are assured of an evening's bright entertainment. This will be followed by the usual programme of dance music until 11 p.m.

A HALF-HOUR'S relay of a concert in the Lewis Bady Hall will open the evening's programme on Fri-

Waters will render a pianoforte solo, "Scherzo B Minor" (Chopin).

ON Saturday evening the 1YA Orchestral Octet under Mr. Eric Waters will play light numbers, including the delightful "Hyde Park" suite. This should take Londoners back to one of their favourite resorts. The Asquiths will be giving another of their drawing-room entertainments, and Mr. Stan Pritchard, baritone, will be heard in some of his fine ballads. "Eric

Amoore (tenor), and Mr. Wilbur Davies (baritone) will be the other singers contributing to an excellent programme. Mr. Norman Aitken will recite "Devil May Care," and will broadcast some original humour. Miss Gladys Smith will play pianoforte solos. A fine instrumental programme will be provided by the 2YA Orchestral under Signor A. P. Truda, the items comprising the overture "Fragal's Cave," Tchaikowsky's "Petite Suite," Sarasate's "Romanza Andaluza," "Rimsky-Korsakoff's "Hymn to the Sun," Tosti's "Serenade," Moszkowski's "From Foreign Ports" and Delibes' "Valse."

ON Tuesday evening at 7.40 there will be the weekly talk for the man on the land. There will be a miscellaneous programme on Tuesday evening. Classical instrumental numbers will be played by two Wanganui artists, Miss Dorothy Hughes-Johnson (violiniste), and Mr. Horatio Nelson (pianist). The singers will be Miss Phyllis Martin (soprano), Mr. A. H. Beckford (baritone), and Mr. Spence Furrell, who will sing popular songs. Humorous songs at the piano will be given by Mr. E. A. Sargent. The programme by the 2YA Salon Orchestra under Mr. Mat Dixon will include the overture "Schone Galatea," "Sanderson's Songs," and "A Doll's House."

A FURTHER lecturette on the correct pronunciation of Maori words will be given by Hare Hongi on Thursday evening at 7.40. Thursday evening's concert will be a very popular entertainment, provided as it will be by the Wellington Artillery Band (under Captain T. Herd), Miss Jeanette Briggs (soprano), Miss Ngaire Coster (contralto), Mr. Oliver Foote (tenor), Mr. L. Bent (baritone), Miss D. Hughes-Johnson (violiniste), Mr. Horatio Nelson (pianist), and Mr. Victor and Miss Elsie Lloyd, humorous sketch artists.

2YA Features

THE Rev. C. V. Rooke will be the preacher at St. Thomas's Anglican Church on Sunday evening. A band concert will follow, to be given in the studio by the Wellington Municipal Tramways Band under Mr. E. Franklin. The assisting vocalists will be Miss Rosina Exton (soprano), Miss Mary Bald (contralto), and Mr. Harry Matthew (baritone).

ON Monday afternoon there will be broadcast descriptions of the third day's play in the second Test match. At 7.40 a lecturette on "Denatured Foods" will be given by Mr. Walter F. Dudson.

Miss Ailsa Nicol, the brilliant young soprano from Lower Hutt, who is shortly going to the Old Country for further training, will be singing on Monday evening, two of her items being "Magdalen at Michael's Gate" and "The Lass with the Delicate Air." Miss Hilda Chudley (contralto), Mr. Frank

FRIDAY evening's programme will be mainly operatic. Excerpts from well-known grand and light operas will be presented. The vocalists will be Miss Lynda Haswell (soprano), Miss Rosa Gardner (contralto), Mr. Will Hancock (tenor), Mr. Ernest Short (baritone), Miss Dorothy Hughes-Johnson (violiniste), Mr. Horatio Nelson (pianist), Madame Eugenie Dennis and partner (sketch artists), and the 2YA Orchestral under Signor A. P. Truda.

ON Saturday evening there will be a further talk by Mr. W. M. Jackson on "Gladoli and Gardening Hints." There will be a good week-end variety programme on Saturday evening. The contributing artists will be the ever-popular Melodie Four, Mr. Billy Hart (popular songs at the piano), Mr. L. Beavis (steel guitar items), Mr. Errol Muir (humorous numbers), and the 2YA Salon Orchestra under Mr. M. Dixon. A xylophone solo, "Sparks," will be played by Mr. L. W. Probert, with orchestral accompaniment.



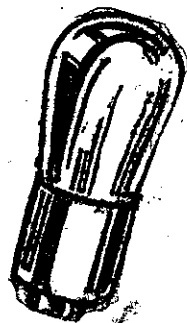
MISS KATHLEEN FERRIS,
Is a lyric soprano, who is well known in Wellington musical circles, having appeared at the recent competitions festival and band concerts.
—S. P. Andrew, photo.



MR. ROBERT SAMSON,
A baritone of exceptional quality, who is heard regularly by all listeners to 2YA.
—S. P. Andrew, photo.

day evening. Amongst the artists included on the studio programme are Madame Cora Melvin and Mr. Norman Day, who will be heard in duets and solos, also Miss Hinemoa Rosieur, contralto. The Studio Trio will play some splendid numbers. Mr. Eric

and Jack" will present some of the latest "hits" at the piano, and the programme will conclude with an hour's dance music.



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BOX 395

CHRISTCHURCH.

3YA Features

THE service in St. Paul's Presbyterian Church will be broadcast on Sunday evening. The Rev. W. Bower Black will be the preacher. A relay from Dunedin—a concert by the Kaikoura Band—will follow.

A VERY bright band programme will mark Monday evening, the instrumentalists being the New Brighton Municipal Band, under Mr. J. A. Nuttall. Some entirely new items will be played. There will be a good supporting vocal programme. Mrs. O. M. Estall, soprano, will make her first appearance in radio. Miss Edna Johnson, a popular entertainer, will be heard in contralto songs and Mr. C. L. Richards, who has not been heard of late from 3YA, will sing "Hatfield Bells," "Captain Mac," and "Rip Van Winkle." There will be recitations by Mrs. H. Temple. Mr. Dudley Wrathall, baritone, will sing "Water Boy" (a negro melody), "Pagan," and "Could I but Express in Song."

AUBER'S famous "Laughing Song" (from "Manon Lescaut") will be one of the songs to be sung by Mrs. J. A. Edwards, in a programme which will be mainly operatic, on Wednesday evening. She will also sing "A Summer Love Tale" and "Death and the Maiden." There will be mezzo-soprano solos by Mrs. Daisy E. Pearce. Mr. Sydney Williamson (tenor) will sing "O Vision Entrancing," "The Song of the Palanquin Bearers," and "Slow, Horses, Slow." Mr. F. C. Penfold's numbers will be "The King's Minstrel," "A Flower Divine," and "King Charles." Humorous recitations will be given by Mrs. Margaret Williams, these comprising two Wish Wynne numbers. A clever young pianist, Miss Ellis Gilders, will play for radio for the first time. The main instrumental programme, which will be a feature of the evening's entertainment, will be provided by the Studio Instrumental Octet under Mr. Harold Beck.

ONE of the finest portions of the excellent programme to be presented by the Studio Instrumental Octet on Thursday evening will be three compositions by Cadman "From the Land of the Sky Blue Water," "The White Dawn is Stealing," and "Moon Drops Low." The vocalists for the evening will be the Grand Opera Quartet, the item being both concerted and solo. To one of Madame Gower Burns's items, "Lo, Here the Gentle Lark," there will be a flute obbligato played by Mr. W. Hay. The evening's programme will be mainly of a classical nature.

A PROGRAMME of popular vocal numbers sung by the Valencia Quartet, with humorous recitations by Mr. L. T. J. Ryan and dance music by the Bailey-Marston Dance Orchestra, will be broadcast on Friday evening. The members of the quartet—Miss Lucy Fullwood, Miss Mary Taylor, Mr. T. G. Rogers, and Mr. E. J. Johnson—will sing solos and concerted numbers. The solos will include "Break o' Day," "The Hills of Donegal," "The Rebel" (from Wallace's "Freebooters' Song"), "The Valley of Laughter," "A Farewell," and "Mother Machree."

MISS NORA GRAY (a 2YA singer) and Miss Nellie Lowe will be the lady vocalists on Saturday evening. Miss Lowe's songs will be "Come Back to Erin," "Annie Laurie," and "Land o' Mine." Mr. E. A. Dowell, baritone, will sing "A Lane in Spain," "All Alone," and "The Hymns of the Old Church Choir." The Joyous Pair will sing jazz songs at the piano, with ukulele, and Mr. Geo. Titchener, humorist, will add much to the gaiety of the evening. Instrumental items will be provided by Miss Irene Morris (violinist) and the Studio Trio.

4YA Features

AN interesting feature of the band programme from 4YA on Sunday will be a selection from Spohr's opera "Jessonda." The story of this opera is laid in Goa, a Portuguese possession on the Indian coast, in the 16th century, when Portugal was a great maritime power. The natives had rebelled, and the Portuguese were for a time expelled. The native Rajah dies, and his widow, Jessonda, is to be burned on the funeral pyre with him, according to the Brahmin custom.

Nadori, a young Brahmin priest, is sent to prepare Jessonda for her fate. But he is a doubting priest and he falls in love with Amazili, the sister of Jessonda, who he promises to save. Jessonda waits anxiously for the assault of the Portuguese, whose warships have arrived with reinforcements for the troops already besieging Goa, for she knows the new commander is her first lover, General Tristan d'Acunha.

The High Priest, Dandau, is intent on sacrificing her. During a truce with the besiegers he conducts her to be bathed in the purifying waters of a sacred fountain. As she passes back through the Portuguese lines she is recognised by d'Acunha, but his honour as a soldier forbids a violation of the truce, and Jessonda passes back to her fate. But Nadori visits d'Acunha secretly, and tells him that the High Priest has already violated the truce by sending out spies to burn the Portuguese ships. Thereupon the Portuguese, guided by Nadori through secret subterranean passages, enter Goa just in time to prevent the death of Jessonda at the hands of the High Priest, who, foiled of the sacrifice, was about to slay her by the sword.

She becomes the bride of d'Acunha, and the young priest marries her sister, Amazili. Other band items will include a very fine arrangement of Beethoven's works and Mendelssohn's "St. Paul," also a new hymn, "Radio-cast," composed by the conductor of the band.

CAPTAIN CANDLER will be the preacher in the Salvation Army Citadel on Sunday evening, when the

service is to be broadcast. A fine studio concert by the Kaikoura Band, under the conductorship of Mr. T. J. Kirk-Burnnand, will follow. The assisting vocalists will be Miss Gwenda Burt (contralto), Mr. W. Harrison (tenor) and Mr. W. Ruffell (baritone).

FEATURED on the first half of the programme on Monday evening will be the light opera "Dorothy," of which the principal excerpts will be sung by the 4YA Harmonists—Miss Mae Matheson, Miss M. Green, Mr. H. Johnson, and Mr. F. M. Tuohy. Other solos by these vocalists will be "Songs My Mother Taught Me," "Bitterness of Love," "The Lotus Flower," and "What the Red Haired Bosun Said." The instrumentalists will be the Studio Trio. Mr. P. J. Palmer will play a cello solo.

A BRASS quintet composed of members of the Kaikoura Band, will be playing on Tuesday evening, interspersing vocal items on the programme. Other instrumental numbers will be a baritone solo by Mr. W. J. Nelson, a cornet solo by Mr. Ira Coughlan, and a tenor horn selection by Mr. D. Scott. The singers for the evening will be Miss Letti de Clifford, Miss Irene Hornblow, and Mr. Norman Lennon. Elocutionary items will be given by Mr. Carl Moller.

ON Wednesday evening at 7.40 there will be a talk to farmers. McCaw's Novelty Saxophone Band, assisted by 4YA artists, will provide Wednesday evening's entertainment. The band will play a very interesting programme. The items will include a saxophone solo by Mr. Jock Magee and a saxophone duet by Messrs. H. Aburn and J. McCaw. The vocal items for the evening will be contributed by Miss Evelyn A. Shepard (soprano) and Mr. Neil Black (baritone), while Miss Nellie Osborn will contribute elocutionary numbers, and Mr. J. A. Pater-son will be heard in Tyffe and Lauder Scottish humour.

FOULDS' famous "Keltic Suite" will be the opening number by the Instrumental Quintet on Friday evening. Other items will be "Haydn Wood's Songs," "Nell Gwynn" overture, "Hungarian Rhapsody No. 1," the overture to "Norma," and a selection from "The Girl on the Film." Further instrumental numbers will be a clarinet solo by Mr. S. George, cello solos by Mr. Frank Drake, and a piano solo by Miss Sybil Baker. The assisting vocalists will be Miss Alleen Young (soprano), and Mr. A. Lungley (baritone), while elocutionary numbers will be given by Mr. Lester Moller.

ON Saturday evening the programme will be relayed from 3YA.

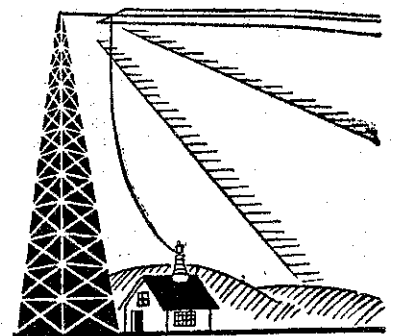
AS a result of recent tests the police of New Jersey, U.S.A., are to be equipped with tiny receiving sets, which have been made to operate at a distance of three and a half miles from the headquarters' broadcasting station. During the tests speech was heard clearly in a basement, some distance from headquarters. The outfit includes a set of collapsible phones, and the patrolman's badge serves as an aerial. The twinkling of a red light attached to the sleeve indicates that headquarters is about to transmit.

Testing Speaker Reproduction

JUDGING the accuracy of musical reproduction from a radio loudspeaker by ear alone is exceedingly difficult, even for the trained musician. In fact, the musician is just as likely to make mistakes as is the music lover who has had no musical training.

The mere fact that the music sounds pleasing to the ear is no proof that the speaker is faithfully putting on the air every tone frequency fed into it by the radio receiver. A jazz band, for example, which is actually producing harsh, strident tones in the broadcast studio may be toned down by receiver and loudspeaker into an approximation of pleasant music. But that is not faithful reproduction, and if applied to better music, the toning down process may be quite unpleasant.

The human voice affords a much harder test of a loudspeaker than does music—probably because the human ear is trained to know when the human voice sounds natural. Listen to the announcer. If the voice is resonant without being hollow or throaty, and the sibilants come through clearly, the reproduction is excellent. Do not be satisfied with mere traces of the "S" and "Th" sounds. They should be heard almost as clearly as in normal speech. After hearing the human voice, listen to a musical selection containing drums and make sure that the drums retain their full resonant boom.



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Sunday, January 26

1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, JANUARY 26.

- 8.0 : Afternoon session—Selected studio items.
 4.0 : Literary selection by the Announcer.
 6.0 : Children's session, conducted by Uncle Leo.
 6.55 : Relay of divine service—Beresford Street Congregational Church.
 Preacher, Rev. Lionel B. Fletcher. Choirmaster, Mr. W. Gemmell.
 8.30 : (approx.) Relay—Auckland Municipal Band, under the conductorship of Mr. Christopher Smith, from Albert Park.
 9.30 : (approx.) God Save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, JANUARY 26.

- 8.0 : Afternoon session—Selected studio items.
 6.0 : Children's Song Service conducted by Uncle George, assisted by the Cambridge Terrace Congregational Sunday School Choir.
 7.0 : Relay of Evening Service of St. Thomas's Anglican Church, Wellington South (Preacher, Rev. C. V. Rooke, M.A.; Organist and Choirmaster, Mr. W. Gatheridge).
 8.15 (approx.) Studio concert by Wellington Municipal Tramways Band (Conductor, Mr. E. Franklin) and assisting artists.
 Hymn—Wellington Municipal Tramways Band, "Lead, Kindly Light" (Purdie).
 Overture—Wellington Municipal Tramways Band, "Pique Dame" (Suppe).
 Soprano—Miss Rosina Exton, "Hark! what I tell to Thee" (Haydn).
 Orchestral—Basle Symphony Orchestra, "Invitation to the Waltz" (Weber) (Columbia 02853).
 Baritone—Mr. Harry Matthew, "The Living God" (O'Hara).
 Violin—Efrem Zimbalist, "Zapateado" (Sarasate) (Columbia 04221).
 Contralto—Miss Mary Bald, "Ave Maria" (Mascheroni).
 Waltz—Wellington Municipal Tramways Band, "Golden Grain" (Trussell).
 Weather report and announcements.
 Soprano—Miss Rosina Exton, (a) "On the Banks of Allan Water" (Horne), (b) "Till I Wake" (Woodforde-Finden).
 Male voice choir—Sheffield Orpheus Male Voice Choir, "The Long Day Closes" (Chorley).
 Selection—Wellington Municipal Tramways Band, "Rose Marie" (Friml-Stolhart).
 Baritone—Mr. Harry Matthew, (a) "In a Monastery Garden" (Ketelbey), (b) "Home Along" (Sanderson).
 Violin—Efrem Zimbalist, "Liebeslied" (Old Vienna Waltz—Kreisler).
 Patrol—Wellington Municipal Tramways Band, "Jungle Drums" (Ketelbey).
 Contralto—Miss Mary Bald, (a) "Che Faro senza Eurydice" (Gluck), (b) "By the Waters of Minnetonka" (Lieurance).
 March—Wellington Municipal Tramways Band, "Invercargill" (Lithgow).
 God Save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, JANUARY 26.

- 8.0 : Afternoon session—Selected studio items.
 5.30 : Children's song service (Children of the Presbyterian Sunday Schools).
 6.15 : Chimes from studio.
 6.30 : Gramophone recital of selected items.
 7.0 : Relay of service from St. Paul's Presbyterian Church. Preacher, Rev. W. Bower Black. Organist, Mr. Norman Williams. Choirmaster, Mr. H. Blakeley.
 8.15 : (approx.) Relay of 4YA, Dunedin (Studio Concert by the Kaikorai Band, and assisting artists).
 9.30 : God Save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, JANUARY 26.

- 8.0 : Chimes. Selected gramophone items.
 5.30 : Children's song service, conducted by Big Brother Bill.
 6.45 : Relay of service from Salvation Army Citadel, Dowling Street.
 Preacher, Capt. Chandler. Choirmaster, Mr. A. A. Millard.
 8.15 : (approx.) Studio concert by the Kaikorai Band, under the conductorship of Mr. Thos. J. Kirk-Burnand, and assisting artists:
 Prelude—Band, "Prelude" Op. 28 (Chopin).
 Concert march—Band, "Resolute" (Newby).
 Tenor—Mr. W. Harrison, (a) "A Dream" (Bartleet); (b) "Vorrei" (Tosti).
 Grand selection—Band, (a) "Beethoven's Works" (arrgd. Ord Hume); (b) Two Hymns, (a) "Willington" (Greenwood); (b) "Sacriston" (Greenwood).

- Contralto—Miss Gwenda Burt, "Still as the Night" (Bohm).
 Weather report.
 Selection—Band, "Jessonda" (Spohr).
 Baritone—Mr. Wm. Ruffell, "When My Ships Come Sailing Home" (Doree).
 Cornet solo with chorus—Band, "Holy, Holy, Holy" (Handel).
 Selection—Band, "Te Deum" (Jackson—arrgd. Bidgood).
 Tenor—Mr. W. Harrison, "Eleanore" (Coleridge-Taylor).
 Selection—Band, "St. Paul" (Mendelssohn).
 March—Band, "Simplicity" (Hume).
 Contralto—Miss Gwenda Burt, (a) "The Great Awakening" (Kramer); (b) "Tired Hands" (Sanderson).
 Baritone—Mr. Wm. Ruffell, "Serenade" (Toselli).
 Concert waltz—Band, "The Choristers" (Dodwell).
 Hymn tune—Band, "Radiocast" (Thos. J. Kirk-Burnand).
 9.30 : God Save the King.

Monday, January 27

1YA, AUCKLAND (900 KILOCYCLES)—MONDAY, JANUARY 27. SILENT DAY.

2YA, WELLINGTON (720 KILOCYCLES)—MONDAY, JANUARY 27.

- 2.0 : Chimes.
 Relay description of Second Test Cricket Match—England (M.C.C.) versus New Zealand, interspersed with studio items.
 3.30 and 4.30 : Sports summary.
 5.0 : Children's session, conducted by Uncle Jeff.
 6.0 : Dinner Session—"Columbia" Hour:
 Ketelbey's Concert Orchestra, "In a Persian Market" (Ketelbey).
 Violin—Efrem Zimbalist, "Liebeslied—Old Vienna Waltz" (Kreisler).
 6.12 : Tacet.
 6.15 : Morceau—Plaza Theatre Orchestra, "The Busy Bee" (Bendix) (01438).
 Dance—Plaza Theatre Orchestra, "My Lady Dainty" (Hesse) (01438).
 J. H. Squire Celeste Octet, "La Serenata" (Braga) (9116).
 Kinema organ—G. T. Pattman, "Firefly" (Nicholls) (01348).
 6.27 : Tacet.
 6.30 : Columbia Symphony Orchestra, "March of the Toys" (Herbert).
 Waltz—New Concert Orchestra, "Hydropaten" (Gungl) (02672).
 Violin—Efrem Zimbalist, "Zapateado" (Sarasate) (04221).
 6.42 : Tacet.
 6.45 : Waltz—New Concert Orchestra, "Jolly Fellows" (Bruder) (02672).
 J. H. Squire Celeste Octet, "Serenade" (Titi) (9116).
 Waltz—Eddie Thomas's Collegians, "Beautiful Ohio" (Earl) (02651).
 6.56 : Tacet.
 7.0 : News session, market reports and sports results.
 7.40 : Lecturette—Mr. Walter F. Dudson, "Denatured Foods."
 8.0 : Chimes.
 Overture—2YA Orchestra under the conductorship of Signor A. P. Truda, "Fingal's Cave" (Mendelssohn).
 8.11 : Soprano—Miss Ailsa Nicol, "Magdalen at Michael's Gate" (Lehmann).
 8.15 : Pianoforte—Miss Gladys Smith, "Impromptu in B Flat" (Schubert).
 8.22 : Baritone—Mr. Wilbur Davies, "The Diver" (Jude).
 8.26 : Instrumental—2YA Orchestra, "Petite Suite" (Tschalkowsky).
 8.34 : Recital—Mr. Norman Aitken, "Devil May Care" (Clarke).
 8.41 : Tenor—Mr. Frank Amore, Recitation and Aria, "Comfort Ye My People," and "Every Valley Shall be Exalted" (Handel).
 8.47 : Violin—Yelly D'Aranyi, "Rondino" (Beethoven-Kreisler).
 8.50 : Contralto—Miss Hilda Chudley, "Dedication" (Landon Ronald).
 8.54 : Instrumental—2YA Orchestra, "Romanza Andaluza" (Sarasate).
 9.0 : Weather report.
 9.2 : Soprano—Miss Ailsa Nicholl, (a) "The Lass With the Delicate Air" (Arne); (b) "Hear What the Mournful Linnets Say" (Daymond).
 9.8 : Baritone—Mr. Wilbur Davies, (a) "Sea Road" (Wood), (b) "Provence" (Carne).
 9.14 : 2YA Orchestra, (a) "Hymn to the Sun" (Rimsky-Korsakov), (b) "Serenade" (Tosti).
 9.23 : Humour—Mr. Norman Aitken, "Mixed and Muddled" (original).
 9.30 : Cello—W. H. Squire, "Humoresque" (Dunkler-Squire).
 9.34 : Tenor—Mr. Frank Amore, (a) "Vesta La Guibba"; ("I Pagliacci") (Leoncavallo); (b) "Believe Me if All Those Endearing Young Charms" (Moore).
 9.41 : Instrumental—2YA Orchestra, "From Foreign Parts" (Moszkowski).
 9.45 : Male choir—Don Cossacks Choir, "Monotonously Rings the Little Bell" (Folk song, arrgd. Jaroff) (Columbia 9085).
 9.48 : Contralto—Miss Hilda Chudley, (a) "Oft in the Stilly Night" (Stevenson), (b) "Sweet and Low" (Barnby).
 9.54 : Concert waltz—2YA Orchestra, "Valse" (Delibes).
 10.1 : Close down.

Week-all Stations-to Feb. 2

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

4YA, CHRISTCHURCH (980 KILOCYCLES)—MONDAY, JANUARY 27.

- 3.0 : Afternoon session—Selected gramophone items.
 4.25 : Sports results to hand.
 5.0 : Children's session, conducted by "Scatterjoy."
 6.0 : Dinner Session—"Columbia" Hour:
 Halle Orchestra, "Capriccio Espagnole" (Rimsky-Korsakov) (02912-3).
 6.18 : Tacet.
 6.15 : Menorah Symphony Orchestra, "Bar Kochba" Selection (Goldgaden).
 Pianoforte—Ignaz Friedman, "Minuetto" ("Suite") (J. Suk).
 New York Symphony Orchestra, "Entrance of the Little Fauns" (Pierne).
 6.28 : Tacet.
 6.30 : B.B.C. Wireless Military Band, "Gathering Peascods" (Folk dance) (arrgd. Cecil J. Sharp) (01711).
 Violin—D'Aranyi, "Souvenir" (Drdla) (03644).
 Orchestra de la Societe des Concerts du Conservatoire, Paris, "Le Rouet D'Omphale" (Saint-Saens) (02926).
 6.42 : Tacet.
 6.45 : B.B.C. Wireless Military Band, "Epping Forest" (Folk dance) (arrgd. Cecil J. Sharp) (01711).
 Pianoforte—Ignaz Friedman, "Berceuse" (Chopin) (04346).
 Berlin State Orchestra, "Wiener Blut" (Strauss) (04337).
 6.58 : Tacet.
 7.0 : News session.
 8.0 : Chimes.
 Studio concert by the New Brighton Municipal Band, under the conductorship of Mr. J. A. Nuttall, and assisting artists.
 March—Band, "United Services" (Clough).
 One-step, Band, "What Happens After the Ball" (Linton).
 8.7 : Baritone—Mr. Dudley Wrathall, (a) "Water Boy" (Burleigh); (b) "Pagan" (Lohr).
 8.13 : Waltz—Zonophone Salon Orchestra, "Destiny" (Baynes).
 8.16 : Soprano—Mrs. C. M. Estall, "I'll Sing to You" (Thompson).
 8.20 : Waltz—Band, "I Found the Sunshine in Your Smile" (Linton).
 8.25 : Humorous recital to pianoforte accompaniment—Mrs. T. Temple, "Kisses" (Turner-Longstaff).
 8.30 : Organ—Herbert Dawson, (a) "Idylle" (Elgar); (b) "Evensong" (Martin).
 8.36 : Baritone—Mr. C. L. Richards, (a) "Hatfield Bells" (Eusthope Martin); (b) "Captain Mac" (Sanderson).
 8.42 : Foxtrot novelties with vocal refrain—Band, (a) "Sarah Jane" (Nicholls); (b) "Sing Song Girl" (Gilbert).
 8.48 : Contralto—Miss Edna Johnson, "It Is Only a Tiny Garden" (Haydn Wood).
 8.52 : Selection—Band, "Musical Fragments" (Rimmer).
 9.1 : Weather report.
 9.3 : Waltz—International Novelty Orchestra, "Cuckoo" (Jonassen).
 Schottische—International Novelty Orchestra, "Lena" (Mewes).
 9.10 : Baritone—Mr. Dudley Wrathall, "Could I But Express in Song" (Malashkin).
 9.14 : Two-step and March Novelties—Band, (a) "The Crescendo" (Ogden); (b) "Meteor" (Ogden).
 9.20 : Soprano—Mrs. C. M. Estall, (a) "Land of Long Ago" (Ray); (b) "Dreaming Alone in the Twilight" (Moore).
 9.26 : Violin and guitar—Guilietta Morini, (a) "Harlequin's Serenade" (Drigo); (b) "Vorrei" (Poggis) (Zonophone EE134).
 9.32 : Humorous recital—Mrs. T. Temple, "In the Rain" (Hanray).
 9.37 : Popular song—Mr. C. L. Richards, "Rip Van Winkle" (Carroll).
 9.41 : Waltz—Zonophone Salon Orchestra, "Ecstasy" (Bayner).
 9.44 : Contralto—Miss Edna Johnson, (a) "Homing" (Del Riego); (b) "Smilin' Through" (Penn).
 9.50 : Chorus with orchestra—Male Chorus, "Over There" medley.
 9.53 : Foxtrot Novelties—Band, (a) "Saskatchewan" (Gilbert); (b) "When Little Children Smile" (Gilbert).
 March—Band, "Gippsland" (Lithgow).
 10.3 : Close down.

4YA, DUNEDIN (650 KILOCYCLES)—MONDAY, JANUARY 27.

- 3.0 : Chimes.
 Selected gramophone items.
 4.25 : Sports results to hand.
 5.0 : Chimes.
 Children's session, conducted by Uncle Allan.
 6.0 : Dinner Session—"Columbia" Hour:
 Orchestral—Finck's Orchestra, "Gaiety Echoes" (Caryll-Monckton).
 Albert Sandler's Orchestra, "Las Lagarteranas" (Guerrero) (01634).
 Violin—Lipschultz, "La Golondrina" (Sorradell) (Regal G20489).
 6.13 : Tacet.
 6.15 : J. H. Squire Celeste Octet, "Everybody's Melodies" (arrgd. Squire).
 Organ—John Hassel, "By the Waters of Minnetonka" (Lieurance).
 Albert Sandler's Orchestra, "Raphaellito" (Guerrero) (01634).
 6.28 : Tacet.
 6.30 : Orchestral—Regal Kinema Orchestra, "Broadway" Selection (Gottler).
 Violin—Lipschultz, "Estrellita" (Ludlow) (Regal G20489).

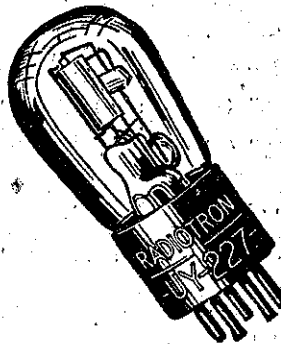
Orchestral—Romani and Italian Orchestra, "Old Comrades" March (Teike) (Regal G20488).

- 6.43 : Tacet.
 6.45 : Berlin State Opera Orchestra, "Die Fledermaus" (Strauss) (04345).
 Nullo Romani's Orchestra, "Canto al Inverno" (Regal G20581).
 Russian Novelty Orchestra, "Tesoro Mio" (Becucci) (Regal G20581).
 6.58 : Tacet.
 7.0 : News session.
 8.0 : Town Hall chimes.
 Overture—Berlin State Opera Orchestra, "The Magic Flute" (Mozart).
 8.9 : Presentation of the light opera "Dorothy" (Cellier) by the 4YA Harmonists Quartet:
 Soprano: Miss Mae Matheson.
 Contralto: Miss M. Green.
 Tenor: Mr. H. Johnson.
 Bass-baritone: Mr. F. M. Tuohy.
 8.30 : Overture—4YA Broadcasting Trio, "Martha" (Flotow).
 8.37 : Continuation of presentation of "Dorothy" (Cellier) by the 4YA Harmonists.
 6.55 : Instrumental—4YA Broadcasting Trio, "Lohengrin—Elsa's Bridal Procession to the Cathedral" (Wagner).
 9.2 : Weather report.
 9.4 : Entr'acte—Royal Opera Orchestra, "Carmen—Ballets No. 1 and 2" (Bizet).
 9.12 : Soprano—Miss Mae Matheson, "Songs My Mother Taught Me" (Dvorak).
 9.16 : Violincello solo—Mr. P. J. Palmer, "Mazurka" (Squire).
 9.21 : Baritone—Mr. F. M. Tuohy, "What the Red-Haired Bos'un Said" (Harry).
 9.25 : Instrumental—4YA Broadcasting Trio, (a) "Romance" (Schumann); (b) "Humoreske" (Schumann).
 9.35 : Contralto—Miss Margaret Green, "Bitterness of Love" (Dunn).
 9.40 : Pianoforte—Mrs. C. Roy Spackman, "Polonaise" (Chopin).
 9.46 : Tenor—Mr. H. Johnson, "The Lotus Flower" (Schumann).
 9.50 : Instrumental—4YA Broadcasting Trio, "Merchant of Venice" Suite (Rosse).
 10.1 : Close down.

Tuesday, January 28

1YA, AUCKLAND (900 KILOCYCLES)—TUESDAY, JANUARY 28.

- 3.0 : Afternoon session—Selected items, including literary selection by the Announcer.
 5.0 : Children's session, conducted by Uncle George.
 6.0 : Dinner session—"Columbia" Hour:
 Royal Italian Band, "Marcia Reale" (Gabetti) (01182).



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WELLINGTON

- Court Symphony Orchestra, "In Venice" (Seflars) (896).
 Kinema organ—Stanley MacDonald, "Was it a Dream?" (Coslow).
 Royal Italian Band, "Garibaldi's Hymn" (Olivieri) (01182).
 6.12: Tacet.
 6.15: Ketelbey's Concert Orchestra, "Sanctuary of the Heart" (Ketelbey).
 'Cello—W. H. Squire, "Melody in F" (Popper) (04178).
 6.26: Tacet.
 6.30: W. H. Squire Celeste Octet, "Mignon"—(1) Introduction and Romance;
 (2) Polonaise (Thomas) (02749).
 'Cello—W. H. Squire, "Silver Threads Among the Gold" (Danks—arrgd.
 Squire) (04178).
 6.42: Tacet.
 6.45: Band of H.M. Grenadier Guards, "Turkish Patrol" (Michaelis) (4111).
 Kinema organ—Stanley MacDonald, "Nicolette" (Batten) (Regal).
 Waltz—Jacque Jacobs Ensemble, "Vienna Life" (Strauss) (02556).
 Idyll—H.M. Grenadier Guards Band, "Smithy in the Woods"
 (Michaelis).
 6.58: Tacet.
 7.0: News session and market reports.
 8.0: Chimes.
 Overture—1YA Orchestral Octet, under the conductorship of Mr. Eric
 Waters, "The Maid of Orleans" (Rawlinson).
 8.10: Vocal trio—Clarion Trio, "Down, Up, Left, Right" ("Going Up")
 (Hirsch).
 8.14: Contralto—Miss Phyllis Gribbin, "Softly Awakes My Heart" ("Sam-
 son and Delilah") (Saint-Saens).
 8.18: Instrumental—1YA Orchestral Octet, "L'Ilot" (Rachmaninoff).
 8.22: Bass-baritone—Mr. Duncan Black, "Dreaming of Home" (Besly).
 8.26: Vocal duet—Miss A. McGruer and Mr. James Simpson, "They Didn't
 Believe Me" ("To-night's the Night") (Rubens).
 8.30: Waltz—1YA Orchestral Octet, "Cagliostro" (Strauss).
 8.39: Tenor—Mr. J. Simpson, "Yes, Let Me Like a Soldier Fall" ("Mari-
 tana") (Wallace).
 8.43: Vocal trio—Clarion Trio, "I'm a Millionaire" ("To-night's the Night")
 (Rubens).
 8.47: Intermezzo—1YA Orchestral Octet, "The Bells of Somerset" (Hull).
 8.56: Weather report.
 8.58: Soprano—Miss Alma McGruer, "Prince Charming" (Lehmann).
 9.2: Vocal trio—Clarion Trio, "The Early Morning" ("To-night's the Night")
 (Rubens).
 9.6: Instrumental—1YA Orchestral Octet, "Les Lilas" (Rachmaninoff).
 9.10: Contralto—Miss Phyllis Gribbin, (a) "O Ship of My Delight" (Phil-
 lips); (b) "Tiptoe" (Carew).
 9.17: Vocal duet—Messrs. J. Simpson and D. Black, "The Twins" (Slaughter).
 9.21: Musical comedy selection—1YA Orchestral Octet, "The Beauty Prize"
 (Kern).
 9.30: Gramophone lecture-recital—A Commentator, "The Latest Recordings."
 10.5: God Save the King.

2YA, WELLINGTON (720 KILOCYCLES)—TUESDAY, JANUARY 28.

- 1.0: Relay from Somes' Island of proceedings in connection with Jubilee Ann-
 versary of the Wellington Harbour Board.
 3.0: Chimes.
 Selected studio items.
 3.30 and 4.30: Sports summary.
 5.0: Children's session, conducted by Uncle Jim.
 6.0: Dinner Session—"His Master's Voice" Hour:
 Selection—Kaufman's Orchestra, "The Gipsy Baron" (Strauss).
 Waltz—La Vittoria Orchestra, "Wedding of the Winds" (Hall).
 6.12: Tacet.
 6.15: Piccadilly Orchestra, (a) "If Only I Had You" (Davies); (b) "Lolita"
 (Ferrete).
 Hawaiian—Kolomoku's Honoluluans, "Aloha Oe" (Liliuokalani).
 Piccadilly Orchestra, "Charmaine" (Rapee) (B2528).
 6.27: Tacet.
 6.30: Selection—New Mayfair Orchestra, "This Year of Grace" (Coward).
 Waring's Orchestra, "Ah! Sweet Mystery of Life" (Herbert) (EB37).
 Hawaiian—Kolomoku's Honoluluans, "Three O'Clock in the Morning"
 (Robledo) (Zenophone EF23).
 6.42: Tacet.
 6.45: Victor Concert Orchestra, "Minuet in G" (Paderewski) (EA240).
 Victor Concert Orchestra, "Amaryllis" (Ghys) (EA240).
 Piccadilly Orchestra, "Bird Songs at Eventide" (Coates) (B2528).
 Waltz—International Concert Orchestra, "Blue Danube" (Strauss).
 6.57: Tacet.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Representative, Agricultural Department, "For the Man on the
 Land."
 8.0: Chimes.
 Overture—2YA Salon Orchestra, (under conductorship of Mr. M. T. Dixon)
 "Schone Galatee" (Suppe).
 8.9: Soprano—Miss Phyllis Martin, (a) "O Give Me Freedom Ever" (Buckley),
 (b) "Somebody's Courting Somebody" (Buckley).
 8.16: Baritone—Mr. A. W. Beckford, "Reuben Ranzo" (Coates).
 8.20: Violin and piano—Miss D. Hughes-Johnson and Mr Horatio Nelson, "Son-
 ata in G Major—Final Movement" (Grieg).
 8.30: Humour—Mr. E. A. Sargent, "House Hunting" (Squires).
 8.37: Popular songs—Mr. Spencer Furrell, (a) "Pagan Love Song" (Freed); (b),
 "Sing a Little Love Song" (Conrad).

- 8.44: Violin solo with piano accompaniment—Miss D. Hughes-Johnson and Mr.
 Horatio Nelson, (a) "Hymn to the Sun" (Rimsky-Korsakov), (b),
 "Mazurka" (Drdla).
 8.49: Soprano—Miss Phyllis Martin, "O How Delightful" (Molloy).
 8.53: Pianoforte—Mr. Horatio Nelson, (a) "Ballet Des Ombres Huerenses"
 (Gluck); (b) "Souvenir Vienne" (Scott).
 9.3: Weather report.
 9.5: Baritone—Mr. A. W. Beckford, (a) "Call of the Wild" (McGeogh); (b)
 "A Bowl of Roses" (Conongshy Clarke).
 9.12: Instrumental—2YA Salon Orchestra, "Old Favourites" (Molloy).
 9.18: Humour—Mr. E. A. Sargent, "Beware of the Maidens" (Day).
 9.23: Popular song—Mr. Spencer Furrell, "When My Dreams Come True"
 (Berlin).
 9.27: Instrumental—2YA Salon Orchestra, "A Doll's House" (Engelmann).
 9.32: "Brunswick" Dance Programme:
 Foxtrot—Cotton Pickers, "He's a Good Man to Have Around" (Yellen).
 Foxtrot—Ray Miller's Orchestra, "Someone's Falling in Love" (Little).
 Foxtrot—Cotton Pickers, "Shoo Shoo, Boogie Boo" (Robin) (4447).
 Foxtrot—Ray Miller's Orchestra, "You Want Lovin'" (Spier) (4425).
 9.42: Vocal duet—"The Inspiration Boys," "On the Alamo" (Kahn) (4436).
 Foxtrot—Mount Royal Hotel Orchestra, "Finding The Long Way Home"
 (Kahn) (4406).
 Waltz—Regent Club Orchestra, "Three O'Clock in the Morning" (Terriss).
 Waltz—Regent Club Orchestra, "Mistakes" (Leslie) (4473).
 9.57: Organ and Xylophone—Lew White, "You Were Meant For Me" (Freed).
 Foxtrot—Mount Royal Hotel Orchestra, "The Land of Sleepy Water"
 (Higman) (4406).
 Foxtrot—Mount Royal Hotel Orchestra, "That's What I Call Sweet Music"
 (Meskill) (4413).
 Foxtrot—Red Nicholls Five Pennies, "Alice Blue Gown" (Tierney).
 Foxtrot—Biltmore Hotel Orchestra, "Now I'm in Love" (Yellen) (4413).
 10.12: Comedienne—June Pursell, "I'm Walking Around in a Dream" (Lewis).
 Foxtrot—Arnold Johnson's Orchestra, "Don't Hang Your Dreams on a
 Rainbow" (Kahal) (4452).
 Foxtrot—Al Goodman's Orchestra, "Or What Have You" (Henry) (4384).
 Foxtrot—Colonial Club Orchestra, "Song of the Moonbeams" (Tobias).
 Foxtrot—Al Goodman's Orchestra, "I've Made a Habit Out of You"
 (Dietz) (4383).
 Waltz—Regent Club Orchestra, "If We Never Should Meet Again" (Leslie).
 10.20: Organ and Xylophone—Lew White, "Wedding of the Painted Doll" (Freed).
 Foxtrot—Oriole Orchestra, "An Old Italian Love Song" (Harrison).
 Foxtrot—Lyman's California Orchestra, "Ain't Misbehavin'" (Razaf).
 Foxtrot—Oriole Orchestra, "Why Did You?" (Lombardo) (4439).
 Foxtrot—Red Nicholls Five Pennies, "A Pretty Girl is Like a Melody"
 (Berlin) (4456).
 10.45: Vocal duet—"The Inspiration Boys," "The Moonlight March" (Newman).
 Foxtrot—Hotel Astor Orchestra, "Every Moon's a Honeymoon" (Wim-
 brow) (4410).
 Foxtrot—Lyman's California Orchestra, "Bashful Baby" (Friend).
 Foxtrot—Hotel Astor Orchestra, "An Eye-Full of You" (Gilbert).
 Waltz—Carter's Orchestra, "That Naughty Waltz" (Stanley).
 11.0: Close down.

3YA, CHRISTCHURCH (980 KILOCYCLES)—TUESDAY, JANUARY 28.

SILENT DAY.

4YA, DUNEDIN (650 KILOCYCLES)—TUESDAY, JANUARY 28.

- 3.0: Chimes. Selected gramophone items.
 4.25: Sports results to hand.
 5.0: Children's session, conducted by Uncle George.
 6.0: Dinner session—"Parlophone" Hour:
 Selection—Edith Lorand Orchestra, "La Boheme" (Puccini) (E10558).
 Waltz—Edith Lorand Orchestra, "La Serenade" (Metra) (E10522).
 Violin—Tossy Spiwakowsky, "Turkish March" (Beethoven) (A2561).
 6.12: Tacet.
 6.15: Waltz—Edith Lorand Orchestra, "Venetian Barcarolle" (Leoncavallo).
 Trio—Dajos Bela Trio, (a) "Traumerei" (Schumann); (b) "Chant
 D'Automne" (Tschalkowsky) (E10573).
 'Cello—Gregor Piatigorsky, "The Swan" (Saint-Saens) (A2628).
 6.28: Tacet.
 6.30: Fantasia—Dajos Bela Orchestra, "La Traviata" (Verdi) (A4027).
 Waltzes—Royal Music Makers, (a) "Kiss Me Again" (Herbert); (b)
 "Ah, Sweet Mystery of Life" (Herbert) (A2722).
 6.44: Tacet.
 6.45: Suite—Paris Opera Comique Orchestra, "Ballet Egyptien" (Luigini).
 6.57: Tacet.
 7.0: News session.
 7.40: Lecturette—Mr. R. W. Marshall of the Tourist Department, "Tourist
 Resorts."
 8.0: Chimes. Overture—Brass Quintette, "Wendouree" (Hume).
 8.8: Soprano—Miss Letti de Clifford, (a) "The Cuckoo" (Lehmann); (b)
 "Spreading the News" (Oliver).
 8.15: Recital—Mr. Carl Moller, "Proverbs Up-to-Date" (Leacock).
 8.21: Instrumental—Mr. W. J. Nelson, "Allan Water" (with variations)
 (arrgd. Hartmann).
 8.29: Bass—Mr. Norman Lennon, "Friend o' Mine" (Sanderson).
 8.33: Brass quintet—(a) "In Remembrance" (Fletcher); (b) "At Even-
 tide" (Wright).
 8.42: Contralto—Miss Irene Horniblow, (a) "Saphic Ode" (Brahms); (b),
 "Mantle of Blue" (Bridge).

- 8.49: Orchestral and chorus—Ketelbey's Concert Orchestra, "Sanctuary of the Heart" (Ketelbey) (Columbia 02690).
 8.57: Cornet—Mr. Ira Coughlan, "Zelda" (Code).
 9.2: Weather report.
 9.4: Mandolin band—Circolo Mandolinistico, "Stephanie Gavotte" (Czibulka).
 9.7: Soprano—Miss Letti de Clifford, "Mother, You Know the Story" ("Cavalleria Rusticana") (Leoncavallo).
 9.11: Brass quintet—(a) "Murmuring Breezes" (Fletcher); (b) "Concord" (Rimel).
 9.20: Recital—Mr. Carl Moller, "Bertram at the Rotary Dinner" (Rutherford).
 9.25: Mandolin band—Circolo Mandolinistico, "Torna a Surriento" (de Curtis).
 9.33: Tenor horn—Mr. D. Scott, "Theme on Traditional Airs" (MS.).
 9.40: Bass—Mr. Norman Lennon, (a) "Youth" (Allitsen); (b) "A Red Rose Bud" (Gibbs).
 9.47: Brass quintet—(a) "The Reaper" (Round); (b) "In Solemn Strains" (Fletcher).
 9.53: Contralto—Miss Irene Hornblow, "Silver" (Gibbs).
 9.57: March—Band of H.M. Grenadier Guards, "Regimental March Medley" (arrgd. Winter) (Columbia 02851).
 10.5: Close down.

Wednesday, January 29

1YA, AUCKLAND (900 KILOCYCLES)—WEDNESDAY, JANUARY 29.

- 3.0: Afternoon session—Studio items, including literary selection by Announcer.
 5.0: Children's session, conducted by Uncle Tom.
 6.0: Dinner Session—"His Master's Voice" Hour:
 Overture—H.M. Coldstream Guards Band, "Poet and Peasant" (Suppe).
 Symphony Orchestra—"Love, the Magician" (De Falla) (D1453).
 6.12: Tacet.
 6.15: March—United States Army Band, "Army and Marine" (Starke).
 Waltz—International Novelty Quartet, "Cuckoo" (Jonasson).
 Waltz—Jack Hylton's Orchestra, "Spanish Rose" (Pearson) (B5481).
 Xylophone—Sam Herman, "Al Fresco" (Zonophone EE53).
 6.30: New Light Symphony Orchestra, "In a Clock Store" (Orth) (C1308).
 March—Royal Opera Orchestra, "Marche Hongroise" (Berlioz).
 Symphony Orchestra—"Spanish Dance" (De Falla) (D1453).
 6.42: Tacet.
 6.45: Schottische—International Novelty Quartet, "Lena" (Mewes).
 Pipe organ, piano, trombone and harp—Shilkret's Rhythm Melodists, "When You're With Somebody Else" (Gilbert) (EA336).
 Waltz—Jack Hylton's Orchestra, "The Angelus Was Ringing" (Damarrell) (B5481).
 March—United States Army Band, "American Spirit" (Buglione).
 6.57: Tacet.
 7.0: News and market reports.
 7.40: Talk—Mr. Norman Kerr, "Physical Culture."
 8.0: Chimes.
 Overture—Mr. Reg. Morgan's Orchestra, "Iris" Intermezzo (Reynard).
 8.10: Vocal quartet—Madame Mary Towsey's Quartet, (soloist, Mr. John Bree)—"Eileen Alannah" (Thomas).
 8.14: Violin—Mr. G. A. Fowler, "Serenade" (Toselli).
 8.18: Comedian—Will Fyffe, "Dr. McGregor" (Fyffe) (Columbia 9108).
 8.22: Instrumental—Reg. Morgan's Orchestra, (a) "Who Wouldn't Be Blue?" (Burke), (b) "Round Evening" (Whiting).
 8.31: Mezzo-soprano—Madame Mary Towsey, "Mother Song" (Densmore).
 8.35: Band of H.M. Grenadier Guards, "The Smithy in the Woods" (Michaelis) (Columbia 4111).
 8.39: Baritone—Mr. John Bree, "What Am I, Love, Without Thee?" (Adams).
 8.43: Instrumental—The Three Aces, "Nola" (Musical Switch) (Arndt).
 8.50: Contralto—Miss Aimee Clapham, "My Ships" (Barrett).
 8.54: Baritone—Mr. Reg. Morgan, (a) Maori song, "Haere Ra" (Kaihu); (b) "I Can't Do Without You" (Berlin).
 9.1: Weather report.
 9.2: Instrumental—Reg. Morgan's Orchestra, (a) "Sunbeams" (Kern-Brennan), (b) "Lonely Little Bluebird" (Woods).
 9.10: Tenor with violin obligato—Mr. J. McDougall (obligato by Mr. A. Lineham), "I Love a Little Cottage" (O'Hara).
 9.14: Xylophone—Mr. Gordon Cole, "Humoresque" No. 3 (arrgd. Cole).
 9.18: Contralto—Miss Aimee Clapham, "A Birthday Song" (Cowen).
 9.22: Pianoforte—Mr. Cyril Towsey, "Sonata in C Sharp Minor" ("Moonlight Sonata" (Beethoven).
 9.27: Instrumental—Mr. Reg. Morgan's Orchestra, (a) "Out of the Dawn" (Donaldson), (b) "I Must Have That Man" (McHugh).
 9.34: Baritone—Mr. John Bree, "The Fortune Hunter" (Willeby).
 9.38: Comedian—Will Fyffe, "The Engineer" (Fyffe) (Columbia 9108).
 9.42: Mezzo-soprano—Madame Mary Towsey, "The Lake Isle of Innisfree" (Peel).
 9.48: Instrumental—Reg. Morgan's Orchestra, "A Bracket of the Latest Hits."
 9.55: Vocal quartet—Madame Mary Towsey's Quartet, "Carry Me Back to Old Virginny" (Bland).
 9.59: Band of the Royal Guards, "National Emblem" March (Bagley).
 10.3: God Save the King.

2YA, WELLINGTON (720 KILOCYCLES)—WEDNESDAY, JANUARY 29.

3 SILENT DAY.

3YA, CHRISTCHURCH (980 KILOCYCLES)—WEDNESDAY, JANUARY 29.

- 3.0: Afternoon session—Selected gramophone items.
 4.25: Sports results to hand.
 5.0: Children's session, conducted by Uncle John.
 6.0: Dinner session—"His Master's Voice" Hour:
 Overture—Berlin State Opera Orchestra, "The Magic Flute" (Mozart).
 Royal Opera Orchestra, "Hungarian Dance No. 5 in F Sharp Minor".
 Grand organ solo—Arthur Meale, "Simple Aveu" (Thome) (Zono.).
 6.18: Tacet.
 6.15: New Light Symphony Orchestra, "Peer Gynt Suite" (Grieg): (1) Ingrid's Lament. (2) Arabian Dance (C1571).
 Violin—Erica Morini, "Romanza Andaluza" (Sarasate) (D1445).
 6.27: Tacet.
 6.30: New Light Symphony Orchestra, "Peer Gynt Suite" (Grieg): (1) Return of Peer Gynt. (2) Solveig's Song (C1572).
 Violin—Erica Morini, "Introduction and Tarantelle" (Sarasate).
 6.42: Tacet.
 6.45: Marek Weber's Orchestra, "Vienna by Night" (Komzak) (C1507).
 Cello—Lauri Kennedy, "Hungarian Rhapsody" (Popper) (C1595).
 6.57: Tacet.
 7.0: News session.
 7.30: Addington Stock Market reports.
 8.0: Chimes.
 Overture—Studio Instrumental Octet, under the conductorship of Mr. Harold Beck, "Cavalleria Rusticana" selection (Mascagni).
 8.11: Baritone—Mr. F. C. Penfold, "The King's Minstrel" (Pinsuti).
 8.15: Pianoforte—Miss Ellis Gilders, "Rustle of Spring" (Sinding).
 8.20: Soprano—Mrs. J. A. Edwards, "The Laughing Song" ("Manon Lescaut") (Auber).
 8.24: Studio Instrumental Octet—"Miniature Suite" (O'Donnell): (1) Canzonetta. (2) Pizzicato.
 8.31: Tenor—Mr. Sydney Williamson, "O Vision Entrancing" (Goring Thomas).
 8.35: Cello—W. H. Squire, (a) "Humoresque" (Dunkler); (b) "Chanson Boire" (Squire) (Columbia 04192).
 8.39: Mezzo-soprano—Mrs. Daisy E. Pearce, "Star of the Mariner" ("La Gioconda") (Ponchielli).
 8.45: Humorous recital—Mrs. Margaret Williams, "A Lantern Lecture" (Wish-Wynn).
 8.50: Instrumental—Studio Instrumental Octet, "Tom Jones" Dances (German).
 8.56: Choral—La Scala Chorus, "Anvil Chorus" ("Il Trovatore") (Verdi).
 9.0: Weather report.
 9.2: National Military Band, "Prelude—Lohengrin" (Wagner) (Zono.).
 9.5: Baritone—Mr. F. C. Penfold, (a) "A Flower Divine" (Haydn Wood); (b) "King Charles" (White).
 9.12: Studio Instrumental Octet—Ballet Suite, "My Lady Dragonfly" (Finck): (1) Call to the Sun. (2) Dance of the Silver Pool. (3) Golden Days. (4) Last Dance of Summer.
 9.23: Soprano—Mrs. J. A. Edwards, (a) "A Summer Love Tale" (Tschalkowsky); (b) "Death and the Maiden" (Schubert).
 9.29: Pianoforte—Miss Ellis Gilders, "Prelude" Op. 28, No. 15 (Chopin).
 9.34: March—National Military Band, "Tannhauser" (Wagner) (Zono.).
 9.37: Tenor—Mr. Sydney Williamson, (a) "The Song of the Palanquin Bearers" (Shaw); (b) "Slow, Horses, Slow" (Mallinson).
 9.43: Cello—W. H. Squire, "Largo" (Handel) (Columbia 04192).
 9.46: Humorous recital—Mrs. Margaret Williams, "Eh Dear, I Dunno" (Wish Wynne).
 9.51: Mezzo-soprano—Mrs. Daisy E. Pearce, (a) "The Stars have Eyes" (Sanderson); (b) "Sing Me a Merry Lay" (Langton Williams).
 9.55: Studio Instrumental Octet, "Plymouth Hoe" (Ansell).
 10.1: Close down.

4YA, DUNEDIN (650 KILOCYCLES)—WEDNESDAY, JANUARY 29.

- 3.0: Town Hall chimes.
 Selected gramophone items.
 3.15: Talk to farm women on "Home Science" (arrgd. by 4YA Primary Productions Committee).
 4.25: Sports results to hand.
 5.0: Children's session.
 6.0: Dinner Session—"Columbia" Hour:
 Band of the Garde Republicaine de France, "The Two Pigeons—1. Entrance of Tziganes; 2. Scene and March of the Two Pigeons" (Messager) (02924).
 Band of the Garde Republicaine de France, "The Two Pigeons—1. Hungarian Dance; 2. Theme and Variations" (Messager) (02925).
 6.14: Tacet.
 6.15: Orchestral—Modern Dance Players, "Over the Waves" (Rosas).
 Orchestral—Modern Dance Players, "Amoretten Tanze" (Gung'l).
 Pianoforte—Gil Dech, "Le Jet D'Eau" (Smith) (01719).
 B.B.C. Wireless Military Band, "Fourpence-Halfpenny Farthing" (arrgd. Cecil J. Sharp) (01710).
 Stellar Instrumental Trio, "The Maiden's Prayer" (Badarzewska).
 6.28: Tacet.
 6.30: Band of H.M. Grenadier Guards, "Fantasia on 17th. Century Music—AD1664" (arrgd. Major George Miller) (02890).
 Organ—Terence Casey, "Bird Songs at Eventide" (Coates) (01501).

- Continental Novelty Orchestra, "Los Claveles de Sevilla" (Guerrero).
 6.43: Tacet.
 6.45: Continental Novelty Orchestra, "Las Lagarteranas" (Guerrero).
 J. H. Squire Celeste Octet, "Come Into the Garden, Maud" (Balfe, arrgd. Sear) (01180).
 J. H. Squire Celeste Octet, "Killarney" (Balfe, arrgd. Sear) (01103).
 Organ—Terence Casey, "I'm Lonely" (Coates) (01501).
 B.B.C. Wireless Military Band, "Lilli Bulerio" (arrgd. Cecil J. Sharp).
 6.59: Tacet.
 7.0: News session.
 7.15: Talk to farmers—"Distemper in Dogs," by Mr. C. V. Dayus, Stock Division, Department of Agriculture.
 8.0: Town Hall chimes.
 Programme of music rendered by Mr. McCaw's Novelty Saxophone Band, assisted by 4YA artists.
 March—"Golden Spur" (Weber, arrgd. Pettitt).
 Selection—"Scottish Selection" (arrgd. Pettitt).
 8.11: Soprano—Miss Evelyn A. Shepard, (a) "Damon" (Max Stange); (b) "Happy Song" (del Riego).
 8.18: Recitals—Miss Nellie Osborn, (a) "A Fancy From Fontenelle" (Dobson); (b) "Jealousy in the Choir" (Jungman).
 8.29: Scottish comedian—Mr. J. A. Paterson, (a) "Come and See the Baby" (Fyffe); (b) "O'er the Hills Tae Ardentenny" (Lauder).
 8.37: Saxophone Novelty Band—(a) "Childhood Memories" (arrgd. Pettitt); (b) "Irish Rose" (arrgd. Pettitt).
 8.45: Baritone—Mr. Neil Black, (a) "Song of the Bow" (Aylward); (b) "Two Eyes of Grey" (McGeoch).
 8.50: Saxophone solo—Mr. J. McCaw, "Valse Vanite" (Wiedoeft).
 9.0: Weather report.
 9.2: Instrumental—Saxophone Band, (a) "Harmoniana" overture (Galuska); (b) "Indian Trial" (Galuska).
 9.11: Soprano—Miss Evelyn A. Shepard, "Singing in the Rain" (Moundrell).
 9.14: Recital—Miss Nellie Osborn, "A Good Little Girl" (A. A. Milne).
 9.18: Saxophone—Mr. Jock Magee, "Saxopeal" (Neil Dunn).
 9.21: Scottish comedian—Mr. J. A. Paterson, "Down the Quarry" (Fyffe).
 9.24: Instrumental—Saxophone Band, (a) Foxtrot, "Broadway Melody" (Brown); (b) Waltz, "Paradise" (Brown).
 9.29: Baritone—Mr. Neil Black, "The Veteran's Song" (Adams).
 9.32: "Columbia" Dance Programme:
 Foxtrot—Ben Selvin's Orchestra, "Broadway Melody" (Brown).
 Foxtrot—Leo Reisman's Orchestra, "My Castle in Spain" (Friend).
 Foxtrot—Broadway Nitelites, "You Were Meant For Me" (Brown).
 Foxtrot—The Knickerbockers, "That's the Good Old Sunny South" (Ager).
 9.42: Entertainer—Norman Long, "What Did the Village Blacksmith Say?" (Squires) (01533).
 Foxtrot—Ben Selvin's Orchestra, "He, She and Me" (Lombardo).
 Foxtrot—Paul Whiteman's Orchestra, "Louise" (Whiting) (07022).
 Foxtrot—Ipana Troubadours, "Deep Night" (Henderson) (01539).
 Waltz—Paul Whiteman's Orchestra, "Blue Hawaii" (Baer) (07021).
 Waltz—Paul Whiteman's Orchestra, "My Angelina" (Wayne) (07020).
 10.0: Duet—Flotsam and Jetsam, "We Never Know What to Expect" (Flotsam and Jetsam) (01530).
 Foxtrot—Piccadilly Players, "Make Believe" (Kern) (01403).
 Foxtrot—Jan Garber's Orchestra, "Guess Who" (Davison) (01489).
 Foxtrot—Piccadilly Players, "Why Do I Love You?" (Kern) (01408).
 Foxtrot—Paul Specht's Orchestra, "My Annapolis and You" (Weinberg).
 10.15: Organ—Frederic Curzon, "For Old Times Sake" (De Sylva).
 Foxtrot—Gil Dech's Syncopators, "My Mammy" (Lewis) (01520).
 Foxtrot—Stellar Dance Band, "If I Had You" (Shapiro).
 Foxtrot—Reser's Syncopators, "Here Comes the Show Boat" (Rose).
 Foxtrot—Harry Reser's Syncopators, "Where Did You Get That Name?" (Klein) (01583).
 10.30: Entertainer—Norman Long, "Overture 1929" (Carlton) (01533).
 Foxtrot—Gelder's Kettner Five, "Shout Hallelujah 'Cause I'm Home" (Dixon) (G20476).
 Foxtrot—Paul Whiteman's Orchestra, "Nola" (Arndt.) (07022).
 Foxtrot—Stellar Dance Band, "How About Me?" (Berlin).
 Foxtrot—Gelder's Kettner Five, "Happy Days and Lonely Nights" (Rose).
 Waltz—Paul Whiteman's Orchestra, "Coquette" (Berlin).
 10.48: Vocal duet—Flotsam and Jetsam, "When I Grow Old Dad" (Flotsam and Jetsam) (01530).
 Foxtrot—Stellar Dance Band, "Flower of Love" (Dreyer).
 Foxtrot—Paul Whiteman's Orchestra, "Chinese Lullaby" (Bowers).
 Waltz—Gil Dech's Syncopators, "I'll Always Be in Love With You" (Ruby) (01520).
 Waltz—Stellar Dance Band, "Marie" (Berlin) (Regal G20486).
 11.0: God Save the King.
- 6.15: Kettelbey's Orchestra, "In a Monastery Garden" (Kettelbey) (02688).
 Waltz—Jacque Jacobs Ensemble, "Over the Waves" (Rosas) (02556).
 6.27: Tacet.
 6.30: Columbia Symphony Orchestra, "Badinage" (Herbert) (01092).
 Waltz—Royal Serbian Tambouritza Orchestra, "Kosovo" (01490).
 Waltz—Symphony Orchestra, "Tales from the Vienna Woods" (Strauss) (02577).
 March—H.M. Grenadier Guards Band, "Twist and Twirl" (Kottaun).
 6.48: Tacet.
 6.45: Waltz—Royal Philharmonic Orchestra, "Blue Danube" (Strauss).
 Waltz—Jacque Jacobs Ensemble, "España" (Waldteufel) (02560).
 6.57: Tacet.
 7.0: News and market reports.
 7.40: Talk—Sir George Richardson (under the auspices of the League of Nations Union), "Peace."
 8.0: Chimes.
 Presentation of special novelty programme, "The Scamps Go Scamping," by the "Radio Scamps."
 9.30: "Brunswick" Dance Programme:
 Foxtrots—Ray Miller's Orchestra, (a) "Let's Sit and Talk About You" (Fields); (b) "In a Great Big Way" (Fields) (4223).
 Foxtrots—The Clevelanders, (a) "I'm Thirsty for Kisses, Hungry for Love" (Davis); (b) "A Little Town Called Home, Sweet Home" (Donaldson) (4252).
 9.43: Wurlitzer organ—Eddie Dunstedter, (a) "Parade of the Wooden Soldiers" (Jessel); (b) "Ah, Sweet Mystery of Life" (Herbert).
 Waltz—Thematics Orchestra, "Giovanna" (Kountz) (4297).
 Foxtrot—Colonial Club Orchestra, "Yo Te Amo" (Bryan) (4241).
 Foxtrot—Six Jumping Jacks, "The Monte Carlo Song" (Endor).
 Foxtrots—The Captivators, (a) "I Used to Love Her in the Moonlight" (Lewis); (b) "Step by Step, Mile by Mile" (Silver) (4308).
 Waltz—Thematics Orchestra, "Lady Divine" (Kountz) (4297).
 10.13: Solo and chorus—Vernon Rickard with Hatch's Melody Makers, "One Golden Hour With You" (Pollack) (4262).
 Foxtrot—Fred Hamm's Collegians, "True Blue" (Garland) (4294).
 Foxtrots—Bob Haring's Orchestra, (a) "Down Among the Sugar Cane" (Tobias); (b) "Because I Know You're Mine" (Derickson).
 Waltz—Colonial Club Orchestra, "Why Don't You Love Me?" (Mason).
 10.30: Male chorus—Famous Forty Elks Chorus, "Sweet and Low" (Barnby).
 Soprano—Elisabeth Rethberg, "By a Lonely Forest Pathway" (Chapman) (15146).
 Foxtrots—Bob Haring's Orchestra, (a) "Deep Night" (Vallee); (b) "Wedding Bells" (Kahal) (4246).
 10.42: Organ with trumpet and drum—Lew White, "Sweethearts on Parade" (Newman) (4263).
 Organ with guitar and vibraphone—Lew White, "My Tonia" (de Sylva).
 Vocal duet—Frank Luther and Carson Robison, (a) "Old Kentucky Cabin" (Robison); (b) "Blue Lagoon" (Robison) (4222).
 Waltz—Hotel Roosevelt Orchestra, "Coquette" (Berlin) (4284).
 Foxtrot—Hotel Roosevelt Orchestra, "Till We Meet" (Davis) (4284).
 11.0: God Save the King.

2YA, WELLINGTON (720 KILOCYCLES)—THURSDAY, JANUARY 30.

- 3.0: Chimes. Relay from Miramar Tennis Courts of description of New Zealand Tennis Championships.
 3.30 and 4.30: Sports summary.
 5.0: Children's session, conducted by Uncle George.
 6.0: Dinner session—"Columbia" Hour:
 Suite—Kettelbey's Concert Orchestra, "In a Fairy Realm" (Kettelbey):
 (1) The Moonlit Glade; (2) The Queen Fairy Dances; (3) Gnomes March (02694/5).
 6.12: Tacet.
 6.15: Columbia Symphony Orchestra, "March of the Bojaren" (Halvorsen).
 Cello—Gaspar Cassado, "Melodie Arabe" (Glazounov) (03579).
 New Queen's Hall Light Orchestra, "Wood Nymphs" (Coates).
 6.26: Tacet.
 6.30: New Queen's Hall Light Orchestra, "Summer Days Suite" (Coates):
 (1) In a Country Lane; (2) On the Edge of the Lake; (3) At the Dance (02590/1).
 6.42: Tacet.
 6.45: J. H. Squire Celeste Octet, "Memories of Mendelssohn" (arrgd. Sear).
 Columbia Symphony Orchestra, "Bridal Procession" (Grieg) (02622).
 6.57: Tacet.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Hare Hongi, "Maori Pronunciation."
 8.0: Chimes. Studio concert by the Wellington Artillery Band, under the conductorship of Captain T. Herd, and assisting artists:
 March—Band, "King Cotton" (Souza).
 Selection—Band, "Sons of Britannia" (arrgd. Rimmer).
 8.15: Soprano—Miss Jeanette Briggs, L.A.B., "A Pastorale" (arrgd. Lane Wilson).
 8.18: Baritone—Mr. L. Bent, "The Sword of Ferrara" (Bullard).
 8.22: Violin and piano—Miss D. Hughes-Johnson and Mr. Horatio Nelson, "Sonata in A Major—Final Movement" (Franck).
 8.33: Humorous sketch—Mrs. Victor S. Lloyd and Miss Elsie Lloyd, "Just Like a Woman" (Sewell Collins).
 8.40: Vocal duet—Harmonic Duo, "On the River" (Allitsen).
 8.44: Tenor—Mr. Oliver Foote, (a) "Two Eyes of Grey" (McGeoch); (b) "Believe Me If All Those Endearing Young Charms" (Moore).

Thursday, January 30

1YA, AUCKLAND (900 KILOCYCLES)—THURSDAY, JANUARY 30.

- 3.0: Afternoon session—Studio items, including literary selection by the Announcer.
 5.0: Children's session, conducted by "Peter Pan."
 6.0: Dinner session—"Columbia" Hour:
 Waltz—Symphony Orchestra, "Artists' Life" (Strauss) (02577).
 Columbia Symphony Orchestra, "Al Fresco" (Herbert) (01092).
 Foxtrot—La Nuova Orchestra, "Di Napoli" (Romani) (01490).
 Band of H.M. Grenadier Guards, "La Paloma" (Yradier) (0987).
 6.13: Tacet.

- 8.50: Violin—Miss D. Hughes-Johnson (with pianoforte accompaniment by Mr. Horatio Nelson), (a) "Cradle Song" (Cui); (b) "Gavotte" (Bach-Kreisler).
 8.58: Mezzo-contralto—Miss Ngaire Coster, "Home, Sweet Home" (Bishop).
 9.1: Weather report.
 9.3: Waltz—Band, "Georgie" (Petter).
 9.5: Baritone—Mr. L. Bent, "The Spirit of Poesy" (Russian folk song).
 9.12: Pianoforte—Mr. Horatio Nelson, "Three Serious Dances—Nos. 2 and 3" (York Bowen).
 9.21: Sketch—Mr. Victor S. Lloyd and Miss Elsie Lloyd, "The Compleat Angler" (A. S. Craven and J. D. Beresford).
 9.30: Vocal duet—Harmonic Duo, "Il Bacio" (Arditi).
 9.34: Euphonium solo with band accompaniment—Bandsman M. Bolt, "Schusucht" (Air Varie) (Hartman).
 Morceau—Band, "Hawaiian Serenade" (Quinlan).
 9.46: Tenor—Mr. Oliver Foote, "Doreen" (Allan).
 9.49: Selection—Band, "H.M.S. Pinafore" (Sullivan).
 March—Band, "National Emblem" (Bagley).
 10.2: God Save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—THURSDAY, JANUARY 30.

- 3.0: Afternoon session—Selected gramophone items.
 4.25: Sports results to hand.
 5.0: Children's session, conducted by Uncle Frank.
 6.0: Dinner session—"Columbia" Hour:
 Selection—B.B.C. Wireless Symphony Orchestra, "La Boutique Fantasque" (Respighi, arrgd. Carr) (Regal G30018).
 'Cello—W. H. Squire, "Humoresque" (Dunkler-Squire) (04192).
 6.13: Tacet.
 6.15: J. H. Squire Celeste Octet, "Chant Sans Paroles" (Tschaiowsky).
 Suite—Plaza Theatre Orchestra, "Gipsy Suite": (1) Valse, Lonely Life; (2) Allegro, The Dance (German) (02537).
 6.27: Tacet.
 6.30: Suite—Plaza Theatre Orchestra, "Gipsy Suite": 1. Menuetto, Love Duet. (2) Tarantella, The Revel (German) (02538).
 Madrid Symphony Orchestra, "Dance of the Neighbours" (de Falla).
 6.42: Tacet.
 6.45: Venetian Players' String Quartet, (a) "Romanza" (Mozart); (b) "Allegro" (Mozart) (Regal G20467).
 Pianoforte—Agnaz Friedman, "Romance in E Flat" (Rubinstein).
 Basle Symphony Orchestra, "Rosamunde—Entr'acte No. 2" (Schubert).
 6.57: Tacet.
 7.0: News session.
 7.30: Talk—Mr. R. McGillivray (Fields Superintendent, Department of Agriculture)—"Intensive Grazing of Pastures" (arranged by 3YA Primary Productions Committee).
 8.0: Chimes.
 Overture—Studio Instrumental Octet, under the conductorship of Mr. Harold Beck, "Songs Without Words" Selection (Mendelssohn—Basquit).
 8.10: Mezzo-contralto, Miss Mavis Spiller, (a) "The Island" (Rachmaninoff); (b) "Lilacs" (Rachmaninoff).
 8.16: Organ—Quentin Maclean, "Merchant of Venice Suite—Prelude No. 2" (Rosse) (Columbia 02797).
 8.19: Tenor—Mr. Ernest Rogers, "The Black Bird" (Quilter).
 8.23: Flute solo—Mr. W. Hay, "Recitative and Aria" (Macfarren).
 6.26: Vocal quartet—Grand Opera Quartet, "Come All Ye Jolly Shepherds" (Wilson).
 8.30: Soprano with flute obligato—Madame Gower-Burns (obligato by Mr. W. Hay), "Lo Here the Gentle Lark" (Bishop).
 8.34: Studio Instrumental Octet—(a) "Second Minuet" (Besley); (b) "Valse Lente" ("Ballet Russe") (Simrock); (c) "Hungarian Dance" (Brahms).
 8.43: Bass—Mr. James Filer, "The Desert" (Emanuel).
 8.47: Instrumental—Musical Art Quartet, "To a Wild Rose" (MacDowell).
 8.50: Soprano and mezzo-contralto duet, Grand Opera Duo, "Pack Clouds Away" (Hunt).
 8.53: Instrumental—Studio Instrumental Octet, (a) "Agnus Dei" (Bizet); (b) "Caprice" (Moszkowski).
 9.0: Weather report.
 9.2: Organ—Quentin Maclean, "Merchant of Venice Suite—Doges' March" (Rosse) (Columbia 02797).
 9.5: Tenor—Mr. Ernest Rogers, (a) "Trusting Eyes" (Gartner); (b) "A Request" (White).
 9.11: Flute—Mr. W. Hay, "Serenade" (Leoncavallo).
 9.15: Mezzo-contralto—Miss Mavis Spiller, "The Rainbow Child" (Coleridge-Taylor).
 9.18: Studio Instrumental Octet, (a) "From the Land of the Sky Blue Water" (Cadman); (b) "The White Dawn is Stealing" (Cadman); (c) "The Moon Drops Low" (Cadman).
 9.26: Bass—Mr. James Filer, "Maids May Boast" (Gounod).
 9.30: Harpsichord—Ignaz Friedman, "Rondo Alla Turca" (Mozart) (Col.).
 9.33: Soprano—Madame Gower-Burns, "When the Birds go North Again" (Willeby).
 9.37: Studio Instrumental Octet—(a) "Sicilienne"; (b) "Bouree"; (c) "Minuet"; (d) "Canon" (Dolmetsch).
 9.47: Tenor and bass duet—Grand Opera Male Duo, "The Moon Hath Raised Her Lamp Above" ("Lily of Killarney") (Benedict).

- Vocal quartet—Grand Opera Quartet, "Blind Man's Buff" (Lehmann).
 9.55: March—Band of H.M. Grenadier Guards, "Martial Moments" (Winter).
 10.3: God Save the King.

4YA, DUNEDIN (650 KILOCYCLES)—THURSDAY, JANUARY 30.

SILENT DAY.

Friday, January 31

1YA, AUCKLAND (900 KILOCYCLES)—FRIDAY, JANUARY 31.

- 3.0: Afternoon session—Studio items, including literary selection by the announcer.
 5.0: Children's session, conducted by Nod and Aunt Jean.
 6.0: Dinner session—"His Master's Voice" Hour:
 New Light Symphony Orchestra, "Merry Wives of Windsor" (Nicolai).
 Waltz—Marek Weber's Orchestra, "Moonlight on the Alster" (Fetras).
 6.12: Tacet.
 6.15: Intermezzo—New Light Symphony Orchestra, "Hearts and Flowers".
 Waltz—Marek Weber's Orchestra, "Wine, Women and Song" (Weber).
 Wuriltzer organ—Reginald Foort, "By the Blue Hawaiian Waters".
 6.26: Tacet.
 6.30: New Light Symphony Orchestra, "The Glow Worm Idyll" (Lincke).
 Victor Salon Orchestra, "Indian Love Call" ("Rose Marie") (Friml).
 Victor Salon Orchestra, "The World is Waiting for the Sunrise".
 Novelty—Balalaika Orchestra, "Song of the Volga Boatmen".
 6.43: Tacet.
 6.45: De Groot's Orchestra, "The Merry Widow" (Lehar) (B2945).
 Wuriltzer organ—Reginald Foort, (a) "Leave Me Alone" (b) "Songs My Mother Taught Me" (Dvorak) (C1459).
 6.57: Tacet.
 7.0: News and market reports.
 8.0: Chimes.
 Relay of concert from Lewis Eady Hall.
 8.30: Organ—Herbert Dawson, "March Pontificale" (Widor) (H.M.V.).
 8.34: Vocal duet—Madame Cora Melvin and Mr. Norman Day, "April Morn" (Batten).
 8.38: Instrumental—Studio Trio, (a) "Micaela's Song" ("Carmen") (Bizet); (b) "Serenade" (Widor).
 8.48: Baritone—Mr. Norman Day, "Love's Dawning" (Clifton and Boanas).
 8.52: Selection—International Concert Orchestra, "La Spagnola" (Di Chaira).
 8.56: Soprano—Madame Cora Melvin, "Carissima" (Arthur and Penn).
 9.0: Weather report.
 9.1: Pianoforte—Mr. Eric Waters, "Scherzo in B Minor" (Chopin).
 9.9: Choral—Russian State Choir, "Storm on the Volga" (Pastchenko).
 9.17: Contralto—Miss Hinemoa Rosieur, "Danny Boy" (Weatherley).
 9.21: Instrumental—Studio Trio, "Ave Maria" (Schubert).
 9.26: Baritone—Mr. Norman Day, "The Heart's Awakening" (Ketelbey).
 9.30: Selection—Chicago Symphony Orchestra, "Valse Triste" (Sibelius).
 9.34: Soprano—Madame Cora Melvin, "The Lass with the Delicate Air" (Arne).
 9.38: Instrumental—Studio Trio, "Valse" ("Faust") (Gounod).
 9.43: Vocal duet—Madame Cora Melvin and Mr. Norman Day, "I Wish I were a Tiny Bird" (Lohr).
 9.47: Valse—Arthur Meale (Organ)—"Mysterieuse" (Meale) (H.M.V.).
 9.51: Contralto—Miss H. Rosieur, (a) "Pleading" (Elgar); (b) "Still as the Night" (Bohm).
 9.58: Dances—Berlin State Orchestra, "German Dances" (Mozart).
 10.6: God Save the King.

2YA, WELLINGTON (720 KILOCYCLES)—FRIDAY, JANUARY 31.

- 2.0: Chimes. Relay from Miramar Tennis Course of description of New Zealand Tennis Championships.
 3.30 and 4.30: Sports summary.
 5.0: Children's session, conducted by Big Brother Jack.
 6.0: Dinner session—"Columbia" Hour:
 Selection—Court Symphony Orchestra, "The Windmill Man" (02909).
 J. H. Squire Celeste Octet, "Scene de Ballet" (de Beriot) (02937).
 Halle Orchestra, "Hungarian Dance No. 5 in C Minor" (Brahms).
 6.13: Tacet.
 6.15: Plaza Theatre Orchestra, "The Three Bears" Fantasy (Coates).
 J. H. Squire Celeste Octet, "A Vision of Christmastide" (Harrison).
 6.27: Tacet.
 6.30: Regimental Band of H.M. Grenadier Guards, "La Benediction des Poignards" (Meyerbeer) (02931).
 Bournemouth Municipal Orchestra, "Echoes of the Valley" (Gennin).
 J. H. Squire Celeste Octet, "Symphonie Pathetique—Second Movement" (Tschaiowsky—arrgd. Robertson) (02937).
 Halle Orchestra, "Hungarian Dance No. 6 in D" (Brahms) (01677).
 6.43: Tacet.
 6.45: Bournemouth Municipal Orchestra, "The Merry Brothers" (Gennin).
 Regimental Band of H.M. Grenadier Guards, "Lo, Here the Gentle Lark" (Bishop) (02931).
 Herman Finck's Orchestra, "Christmas Memories" (arrgd. Finck).
 6.59: Tacet.
 7.0: News session, market reports and sports results.

- 8.0 : Chimes.
Overture—2YA Orchestra, under the conductorship of Signor A. P. Truda, "Carmen" (Bizet).
8.9 : Soprano—Miss Lynda Haswell, "Fair Spring is Returning" (Saint-Saens).
8.13: Violin and piano—Miss D. Hughes-Johnson and Mr. Horatio Nelson, "Sonata in D Major—Final Movement" (Cui).
8.26: Baritone—Mr. Ernest Short, "The Song of the Flea" (Moussorgsky).
8.30: Instrumental—2YA Orchestra, "Master Melodies of Light Opera" Revue 1 (arrgd. Roberts).
8.38: Contralto—Miss Rosa Gardiner, "Roberto o tu Che Adoro" (Meyerbeer).
8.41: Violin with piano accompaniment—Miss D. Hughes-Johnson and Mr. Horatio Nelson, (a) "Orientale" (Cui); (b) "Spanish Dance" (Granado-Kreisler).
8.52: Sketch—Madame Eugenie Dennis and Partner, "Peach Pies" (Anon.).
8.59: Tenor—Mr. Will Hancock, "There's a Song Down Every Roadway" (Haydn Wood).
9.3 : Weather report.
9.5 : Selection—2YA Orchestra, "Koenigskinder" (Humperdinck).
9.15: Soprano—Miss Lynda Haswell, "Just for To-day" (Fraser-Simpson).
9.18: Baritone—Mr. Ernest Short, "The Beetle and the Boat" ("Lady Madcap") (Rubens).
9.22: Pianoforte—Mr. Horatio Nelson, (a) "Chant D'Amour" (Paderewski); (b) "Scherzino" (Paderewski).
9.32: Contralto—Miss Rosa Gardiner, "Habanera" ("Carmen") (Bizet).
9.36: Sketch—Madame Eugenie Dennis and Partner, "The Wife's Visit to Her Butcher" (Anon.).
9.43: Instrumental—2YA Orchestra, "Prize Song" ("The Mastersingers") (Wagner).
9.51: Tenor—Mr. Will Hancock, "Over the Wall of My Garden" (Charles).
9.54: Concert waltz—2YA Orchestra, "Dolores" (Waldteufel).
10.1 : God Save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—FRIDAY, JANUARY 31.

- 8.0 : Afternoon session—Selected gramophone items.
4.25: Sports results.
5.0 : Children's session, conducted by "Storyman."
6.0 : Dinner session—"His Master's Voice" Hour:
Overture—National Symphony Orchestra, "Orpheus in Hades" (Offenbach) (Zonophone EF16).
San Francisco Symphony Orchestra, "Caprice Viennois" (Kreisler).
8.12: Tacet.
6.15: New Light Symphony Orchestra, (a) "Spring Song" (Mendelssohn); (b) "Narcissus" (Nevin) (Zonophone EF111).
San Francisco Symphony Orchestra, "Coppelia Ballet" (Delibes).
Violin—Fritz Kreisler, "Tango Albeniz" (arrgd. Kreisler) (DA1009).
6.28: Tacet.
6.30: Philadelphia Symphony Orchestra, "Invitation to the Waltz" (Weber).
San Francisco Symphony Orchestra, (a) "Serenade" (Moszkowski); (b) "Oriental" (Auber) (ED6).
6.42: Tacet.
6.45: San Francisco Symphony Orchestra, "Valse de Concert" (Glazounov).
San Francisco Symphony Orchestra, "Liebeslied" (Kreisler) (ED6).
6.57: Tacet.
7.0 : News session.
8.0 : Chimes.
Overture—Berlin State Opera Orchestra, "Wine, Women and Song" (Strauss) (Parlophone A4019).
8.9 : Vocal quartet—Valencia Quartet, (a) "There was a Jolly Miller" (Eaton Fanning); (b) "Begone, Dull Care" (Eaton Fanning).
Soprano—Miss Lucy Fullwood, "Break o' Day" (Sanderson).
8.16: Dance music—Bailey-Marston Dance Orchestra, (a) "I've Never Seen a Smile Like Yours" (Frazier); (b) "Dream Mother" (Burke).
8.24: Tenor—Mr. T. G. Rogers, "The Barefoot Trail" (Wiggins).
8.28: Contralto—Miss Mary Taylor, "The Hills of Donegal" (Sanderson).
8.31: Violin—Max Rosen, "Song of Love" (Donnelly) (Brunswick 15203).
8.35: Bass—Mr. E. J. Johnson, "The Rebel" ("Freebooters Songs") (Waldteufel).
8.39: Dance music—Bailey-Marston Dance Orchestra, (a) "The One That I Love Loves Me" (Turk); (b) "Querida" (Simon).
8.47: Humour (to piano accompaniment)—Mr. L. T. J. Ryan, "The Charge of the Dark Brigade" (Thorpe and Charles).
8.52: Soprano and contralto duet—Valetta Duo, "When Song is Sweet" (Sans Souci).
8.56: Steel guitars—Queenie and David Kaili, "Hilo March" (Pale).
9.0 : Weather report.
9.2 : Vocal quartet—Valencia Quartet, "The Tight Little Island" (Eaton Fanning).
9.6 : Soprano—Miss Lucy Fullwood, "The Valley of Laughter" (Sanderson).
9.10: Dance music—Bailey-Marston Dance Orchestra, (a) "The Desert Song" (Romberg); (b) "Fascinating Vamp" (Nausbaum).
9.18: Tenor—Mr. T. G. Rogers, "A Farewell" (Liddle).
9.22: Violin—Max Rosen, "I Kiss Your Hand, Madame" (Erwin).
9.25: Contralto—Miss Mary Taylor, "I Heard You Singing" (Coates).
9.28: Humorous recital—Mr. L. T. J. Ryan, "The Lad with a Pair" (MS.).
9.38: Dance music—Bailey-Marston Dance Orchestra, (a) "The Toymaker's Dream" (Golden); (b) "I'm Just a Vagabond Lover" (Vallee).
9.41: Bass—Mr. E. J. Johnson, "Mother Machree" (Allcott and Ball).

- 9.45: Organ—Eddie Dunstedter, (a) "Marie" (Berlin); (b) "Carolina Moon" (Davis) (Brunswick 4292).
9.49: Vocal quartet—Valencia Quartet, "The Parting Kiss" (Pinsuti).
9.53: Dance music—Bailey-Marston Dance Orchestra, (a) "Sweetheart of All My Dreams" (Lowe); (b) "One Alone" (Romberg).
The Bailey-Marston Dance Orchestra will continue until 11 p.m. with the following dance music:
"That's You Baby" (Conrad).
"Breakaway" (Conrad).
"Wedding of the Painted Doll" (Turk).
"Jericho" (Myers).
"Laughing Marionette" (Collins).
"Shoo, Shoo, Boogie Boo" (Whiting).
"Mean to Me" (Turk).
"Walking with Susie" (Conrad).
Ten Little Miles from Town" (Kahn).
11.0 : God Save the King.

4YA, DUNEDIN (650 KILOCYCLES)—FRIDAY, JANUARY 31.

- 3.0 : Chimes—Selected gramophone items.
3.15: Talk on "Fashions" by Miss Buccleuch, of the D.S.A., Ltd.
4.25: Sports results to hand.
5.0 : Children's session, conducted by Aunt Sheila.
6.0 : Dinner session—"His Master's Voice" Hour:
Selection—New Mayfair Orchestra, "Lilac Time" (Schubert-Clutsam).
Royal Opera Orchestra, "Carmen Ballet No. 1" (Bizet) (C1424).
6.12: Tacet.
6.15: National Symphony Orchestra, "William Tell" Overture (Rossini).
6.27: Tacet.
6.30: Royal Opera Orchestra, "Sylvia Ballet—Pizzicato and Procession of Bacchus" (C1418).
Royal Opera Orchestra, "Carmen Ballet No. 2" (Bizet) (C1424).
6.42: Tacet.
6.45: Detroit Symphony Orchestra, "Spanish Rhapsody" (Chabrier) (E522).
Philadelphia Symphony Orchestra, "Nocturne No. 2—Fetes" (Debussy).
6.57: Tacet.
7.0 : News session.
8.0 : Chimes.
8.1 : Suite—Instrumental Quintette, "Keltic Suite" (Foulds): (a) The Clans. (b) A Lament. (c) The Call.
8.15: Soprano—Miss Aileen Young, "June is Calling" (Sanderson).
8.19: Bass, with chorus—Stuart Robertson, (a) "There is a Tavern in the Town" (Trdtl.); (b) "John Peel" (Trdtl.) (H.M.V. B2992).
8.22: Clarinet—Mr. S. George, "Grand Fantasia" (Brepant).
8.31: Recital—Mr. Lester Moller, "A Changed Man" (Anon.).
8.35: Selection—Instrumental Quintette, "Haydn Wood's Songs" (Haydn Wood).
8.41: Baritone—Mr. Arthur Langley, "Five and Twenty Sailors" (Taylor).
8.45: Cello—Mr. Frank Drake, (a) "Auld Robin Gray" (Trdtl.); (b) "The Rosary" (Nevin).
8.52: Bass with chorus—Stuart Robertson, (a) "Clementine" (Montrose); (b) "Solomon Levi" (Seaver) (H.M.V. B2992).
8.58: Overture—Instrumental Quintette, "Nell Gwynn" (German).
9.5 : Weather report.
9.7 : Soprano—Miss Aileen Young, (a) "Nightfall at Sea" (German); (b) "Irish Folk Song" (Foote).
9.14: Overture—Instrumental Quintette, "Norma" (Bellini).
9.24: Choral—Russian State Choir, "Storm on the Volga" (Pastchenko).
9.32: Pianoforte—Miss Sybil Baker, "Waltz" (Chopin).
9.38: Baritone—Mr. Arthur Langley, (a) "When Dew is Falling" (Schneider); (b) "Bells of the Sea" (Solman).
9.45: Selection—Instrumental Quintette, "Hungarian Rhapsody" No. 1 (Liszt).
9.50: Recital—Mr. Lester Moller, "Guy De Vere Plays Football" (Roberts).
9.56: Selection—Instrumental Quintette, "The Girl on the Film" (Kollo).
10.3 : God Save the King.

Saturday, February 1

1YA, AUCKLAND (900 KILOCYCLES)—SATURDAY, FEBRUARY 1.

- 3.0 : Afternoon session—selected studio items.
4.0 : Literary selection by announcer.
5.0 : Children's session, conducted by "Cinderella."
6.0 : Dinner session—
Selection—Debroy Somers' Band, "The Desert Song" (Romberg) (Col.).
Waltz—Eddie Thomas' Collegians, "Moments with You" (Shilkret).
Mandolin band, "Turn to Surriento" (de Curtis (Columbia 01210)).
6.12: Tacet.
6.15: Waltzes—International Concert Orchestra, (a) "Over the Waves" (Rosas); (b) "Danube Waves" (Ivanovici) (Zonophone EF3).
Hilo Hawaiian Orchestra, (a) "Kawaihau Waltz" (Kealakai); (b) "My Hilo Love" (H.M.V. B2799).
6.27: Tacet.
6.30: Wurlitzer organ—"Merchant of Venice" Suite (Rosse): (1) Prelude (2) Intermezzo. (3) Oriental March (Columbia 02796).

- Mandolin Band, "Stephanie Gavotte" (Czibulka) (01210).
Saxophone—Rudy Wiedoeft, "Serenade" (Drigo) (Columbia 01180).
- 6.42: Tacet.
- 6.45: Waltz—International Concert Orchestra, "Gipsy Love" (Lehar).
New Light Symphony Orchestra, (a) "Barcarolle" (Offenbach); (b) "Intermezzo" ("Cavalleria Rusticana") (Mascagni) (H.M.V.).
Waltz—International Concert Orchestra, "Sweetheart" (Strauss).
- 6.59: Tacet.
- 7.0: News and market reports.
- 8.0: Chimes.
- Overture—1YA Orchestral Octet, under the conductorship of Mr. Eric Waters, "Die Schone Melusine" (Mendelssohn).
- 8.10: Soprano—Marie Burke, "You Kiss my Hand, Monsieur" (Erwin).
8.13: Baritone—Mr. Stan Pritchard, "O Night, O Life" (Sanderson).
8.17: Band of H.M. Grenadier Guards, "Lo, Here the Gentle Lark" (Bishop).
8.21: Novelty—The Asquiths, Twenty Minutes Drawing-room Entertainment.
8.41: Waltz—1YA Orchestral Octet, "Pagan Love Song" (Freed).
Foxtrot—1YA Orchestral Octet, "Outside" (Flynn).
- 8.50: Humour—The Two Black Crows, "Esau Buck and the Bucksaw".
8.54: Contralto—Carrie Herwin, "When You Come Home" (Squire) (Col.).
8.58: Weather report.
- 9.0: Instrumental—1YA Orchestral Octet, "Hyde Park" Suite (Jalowicz):
(1) Sunday Morning Parade. (2) Rotton Row. (3) The Serpentine. (4) Round the Bandstand.
- 9.9: Humour—Billy Bennett, "Domestic Blisters" (Columbia 9105).
- 9.13: Piano and vocal—Eric and Jack, (a) "You were Meant for Me" (Brown); (b) "Sleepy Valley" (Dowling).
- 9.21: Banjo—Len Fillis, "Uncanny Banjo" (Fillis) (Columbia 0990).
- 9.24: Baritone—Mr. Stan. Pritchard, (a) "Harbour Night Song" (Sanderson); (b) "The Storm Fiend" (Roekel).
- 9.31: Instrumental—1YA Orchestral Octet, "Valse" (Widor).
- 9.40: Humour—The Two Black Crows, "Foolishments" (Columbia 01671).
- 9.44: Piano and vocal—Eric and Jack, (a) "When My Dreams Come True" (Berlin); (b) "Weary River" (Silva).
- 9.52: Musical comedy selection—1YA Orchestral Octet, "Sally" (Kern).
- 10.0: "His Master's Voice" Dance Programme:
Foxtrot—Rhythmic Eight, "Don't be Like That" (Gottler) (Zono.).
Foxtrot—Jack Hylton's Orchestra, "Sweetheart of All My Dreams" (Fitch) (EA540).
Foxtrot—Arcadians' Dance Orchestra, "Pokee-okee-oh" (Butler).
Foxtrot—Jack Hylton's Orchestra, "I Lift up my Finger and Say Tweet Tweet" (Sarony) (EA540).
- 10.12: Wurlitzer organ—Jesse Crawford, "A Precious Little Thing Called Love" (Davis) (EZ536).
Foxtrot—Geo. Olsen's Music, "I'm Bringing a Red, Red Rose" (Kahn).
Foxtrot—Nat Shilkret's Orchestra, "One for All, All for One" (Trent).
Foxtrot—Heldt's Orchestra, "I'm Crazy for You" (Jolson) (EA539).
Waltz—Arcadians' Dance Orchestra, "Anita" (Pollack) (Zono. EE154).
Waltz—Arcadians' Dance Orchestra, "That Old Time Organ Melody".
- 10.30: Contralto—Lupe Velez, "Mi Amado" (EA535).
Foxtrot—Geo. Olsen's Music, "Come West, Little Girl, Come West".
Foxtrot—Nat Shilkret's Orchestra, "I'm Thirsty for Kisses, Hungry for Love" (Davis) (EA528).
Foxtrot—Nat Shilkret's Orchestra, "Some Sweet Day" (Shilkret).
Foxtrot—Waring's Pennsylvanians, "My Mother's Eyes" (Gilbert).
- 10.45: Wurlitzer organ—Jesse Crawford, "Carolina Moon" (Davis) (EA536).
Foxtrot—"Kassels in the Air"—"He, She and Me" (Newman).
Foxtrot—Park Central Orchestra, "Sally of My Dreams" (Kernell).
Waltz—Connecticut Yankees, "Coquette" (Berlin) (EA532).
Waltz—Shilkret's Orchestra, "Lady Divine" (Shilkret) (EA531).
- 11.0: God Save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SATURDAY, FEBRUARY 1.

- 2.0: Chimes.
Relay from Miramar tennis courts of description of New Zealand Tennis Championships.
- 3.30 and 4.30: Sports summary.
- 5.0: Children's session, conducted by Uncle Toby.
- 6.0: Dinner Session—"Parlophone" Hour:
Edith Lorand Orchestra, "Johann Strauss" fantasia (Strauss) (A4044).
Piano and orchestra—Raie da Costa and Orchestra, "When Day is Done" (De Sylva) (4041).
- 6.12: Tacet.
- 6.15: Hawaiian—David Kaili, "Honolulu March" (A2464).
Kinema organ—Leslie Harvey, "Where the Shy Little Violets Grow" (Warren) (A2695).
Waltz—Dajos Bela Orchestra, "The Grenadiers" (Waldteufel) (A4081).
Saxophone—Arnold Brillhart, "Fascination" (Bernie) (A2676).
- 6.28: Tacet.
- 6.30: Waltz—Dajos Bela Orchestra, "Polish Life" (Nedbal) (A4008).
Piano and Orchestra—Raie da Costa, "Sweetheart, I'm Dreaming of You" (Carter) (A4041).
Dajos Bela Orchestra, "Dancing Demoiselle" (Falle) (A4008).
- 6.42: Tacet.
- 6.45: Selection—Edith Lorand Orchestra, "The Dollar Princess" (Fall).
Waltz—Dajos Bela Orchestra, "Casino Tanze" (Gungi) (A4081).
- 6.57: Tacet.
- 7.0: News session, market reports and sports results.
- 7.40: Lecturette—Mr. W. M. Jackson, "Gladioli and Gardening Hints."

- 8.0: Chimes.
Overture—2YA Salon Orchestra, under the conductorship of Mr. M. T. Dixon, "Martial Moments" (arrgd. Winter).
- 8.9: Vocal quartet—Melodie Four, "Little Alabama Coon" (Starr).
- 8.13: Steel guitar—Mr. L. Beavis, (a) "Sailing Along to Hawaii" (Bories), (b) "Aloha Land" (Herper).
- 8.20: Popular songs at piano—Mr. Billy Hart, (a) "Heart O' Mine" (Silver).
(b) "Where the Bab-Babbling Brook Goes Bub-Bub-Bubbling By" (Nelson), (c) "Mother's Boy" (Green).
- 8.30: Instrumental—2YA Salon Orchestra, "A Perfect Day" (Jacobs-Bond).
Xylophone solo with orchestral accompaniment—Mr. L. W. Probert, "Sparks" (Alford).
- 8.40: Humour—Mr. Errol Muir, "Bertram Addresses the Tenants" (Rutherford).
- 8.47: Tenor—Mr. Sam Duncan, "I Hear a Thrush at Eve" (Cadman).
- 8.51: Instrumental—2YA Salon Orchestra, request number.
- 8.59: Weather report.
- 9.1: Baritone—Mr. R. S. Allwright, "Once" (Hervey).
- 9.5: Vocal quartet—Melodie Four, request number.
- 9.9: Steel guitar—Mr. L. Beavis, (a) "She Sang Aloha to Me" (Carey, arrgd. Awai), (b) "One, Two, Three, Four" (Alau, arrgd. Awai).
- 9.16: Tenor—Mr. Frank Bryant, "A Song and a Dream" (Cadman).
- 9.20: Instrumental—2YA Salon Orchestra, "Scenes From the Kinema" (Ketelbey).
- 9.23: Humour—Mr. Errol Muir, "Bertram on Business" (Rutherford).
- 9.35: Bass—Mr. W. W. Marshall, "The Bandolero" (Stuart).
- 9.39: Pianoforte—Thomas Waller, "I've Got a Feeling I'm Falling" (Rose).
Chorus with Orchestra—Light Opera Company, vocal gems from "Hold Everything" (de Sylva) (H.M.V. EB41).
- 9.46: Vocal quartet—Melodie Four, "Mulligan Musketeers" (Atkinson).
- 9.50: Instrumental—2YA Salon Orchestra, Dance Novelties.
- 10.0: "Brunswick" Dance Programme:
Foxtrot—Six Jumping Jacks, "The Whoopee Hat Brigade" (Siegel).
Foxtrot—Cotton Pickers, "No Parking" (Chase) (4440).
Foxtrot—Six Jumping Jacks, "Piccolo Pete" (Baxter) (4457).
Waltz—Bob Haring's Orchestra, "I Love You" (Fisher) (4458).
- 10.12: Vocal—Al Jolson, "Liza" (Kahn) (4402).
Foxtrot—Cotton Pickers, "St. Louis Gal" (Robinson) (4440).
Foxtrot—Cotton Pickers, "Monnin' Low" (Dietz) (4446).
Foxtrot—Lyman's California Orchestra, "Suzanna" (Ward) (4423).
Foxtrot—Al Goodman's Orchestra, "After Thinking it Over" (Davis).
Foxtrot—Bob Haring's Orchestra, "Song of Siberia" (Lewis) (4493).
Organ and Vibraphone—Lew White, "Honey" (Simons) (4386).
- 10.30: Foxtrot—Lyman's California Orchestra, "Junior" (Donaldson) (4423).
Foxtrot—Bob Haring's Orchestra, "The Moonlight March" (Newman).
Foxtrot—Bob Haring's Orchestra, "At Close of Day" (Klages) (4458).
Waltz—Colonial Club Orchestra, "My Song of the Nile" (Bryan).
- 10.45: Vocal duet—The Dixie Stars, "Sweet Mandy" (4459).
Foxtrot—Carl Fenton's Orchestra, "The World's Greatest Sweetheart" (Razaf) (4467).
Foxtrot—Colonial Club Orchestra, "If You Believed in Me" (Gilbert).
Foxtrot—Carl Fenton's Orchestra, "Smiling Irish Eyes" (Ruby).
Foxtrot—Carl Fenton's Orchestra, "Love is a Dreamer" (Green).
- 11.0: Close down.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SATURDAY, FEBRUARY 1.

- 3.0: Afternoon session—Selected studio items.
- 4.25: Sports results.
- 5.0: Children's session—Aunt Pat and Chuckle.
- 6.0: Dinner session—"Columbia" Hour:
Overture—Basle Symphony Orchestra, "Der Freischutz" (Weber).
- 6.12: Tacet.
- 6.15: J. H. Squire Celeste Octet, (a) "Grasshoppers' Dance" (Bucalossi);
(b) "The Butterfly" (Bendix) (3608).
Musical Art Quartet, "To a Wild Rose" (McDowell) (01506).
Violin—Yvonne Curti, "Madrigale" (Simonetti) (01529).
- 6.27: Tacet.
- 6.30: J. H. Squire Celeste Octet, (a) "I Love the Moon" (Rubens); (b) "Two Eyes of Gray" (McGeoch) (01213).
J. H. Squire Celeste Octet, (a) "Amoreuse" Valse (Berger); (b) "Valse Bleue" (Margis) (3643).
- 6.42: Tacet.
- 6.45: J. H. Squire Celeste Octet, "Valse Caprice" (Rubinstein) (02581).
Cello—W. H. Squire, "Sarabande" (Seitzer) (04283).
J. H. Squire Celeste Octet, "Perpetuum Mobile" (Weber, argd. Crooke).
- 6.57: Tacet.
- 7.0: News session.
- 8.0: Chimes.
Overture—London Theatre Orchestra, "New Moon" Selection (Romberg) (Columbia 05018).
- 8.9: Popular songs—Mr. E. A. Dowell, (a) "A Lane in Spain" (Lombardo);
(b) "All Alone" (Berlin).
- 8.15: Violin—Miss Irene Morris, "Souvenir" (Drdla).
- 8.19: Soprano—Miss Nora Gray, "Enchanted River" (Elliott).
- 8.23: Instrumental—Christchurch Broadcasting Trio, (a) "Love Song" (Cadman); (b) "Air de Ballet" (Adam); (c) "Hungarian Dance No. 3" (Brahms).
- 8.33: Jazz songs with ukulele—Joyous Pair, (a) "Josie and Me" (O'Hagan);
(b) "Walking with Susie" (Conrad).
- 8.40: Novelty Tap Dance, Bill Robinson, "Doin' the New Low Down".
- 8.43: Humour—Mr. Geo. Titchener, (a) "How I Climbed the Pole" (Little Tich); (b) "Shell Shocks" (M.S.).

- 8.49: Novelty—London Mouth Organ Band, "The Royal Return" March.
 8.52: Contralto—Miss Nellie Lowe, "Come Back to Erin" (Claribel).
 8.56: Selection—Plaza Theatre Orchestra, "Pearl O' Mine" (Fletcher) (Col.).
 9.0: Weather report.
 9.2: Concerted—Evelyn Lowe and chorus, "The Girl on the Prow" ("New Moon") (Romberg) (Columbia 05020).
 9.6: Baritone—Mr. E. A. Dowell, "The Hymns of the Old Church Choir" (Solmon).
 9.10: Violin—Miss Irene Morris, "Serenade" (Pierne).
 9.13: Soprano—Miss Nora Gray, (a) "Cunnin' L'il Thing" (Penn); (b) "To You" (Oley Speaks).
 9.19: Instrumental—Christchurch Broadcasting Trio, (a) "Waltz" (Carreno); (b) "Melody in F" (Rubinstein); (c) "Presto" (Hummel).
 9.31: Jazz songs with ukulele—Joyous Pair, (a) "Mean to Me" (Turk); (b) "Don't be Like That" (Kahn).
 9.38: Tap Dancer—Bill Robinson, "Ain't Misbehavin'" (Waller) (Brun.).
 9.44: Humour—Mr. Geo Titchener, "The Postman" (MS).
 9.49: March—London Mouth Organ Band, "Joyous Greetings" (Leslie).
 9.52: Popular songs—Miss Nellie Lowe, (a) "Annie Laurie" (Lehmann); (b) "Land O' Mine" (Nutting).
 9.58: Musical comedy—Evelyn Lowe and Howard Worster, "Wanting You" ("The New Moon") (Romberg) (Columbia 05020).
 10.1: "Columbia" Dance Programme:
 Foxtrot—Ipana Troubadours, "Building a Nest for Mary" (Greer).
 Slow foxtrot—Piccadilly Players, "Bogey Wail" (Wallace) (01567).
 Foxtrot—Ipana Troubadours, "I Used to Love her in the Moonlight".
 Waltz—Rhythmic Troubadours, "My Irish Paradise" (Tilsley) (Regal).
 10.12: Vocal duet—Layton and Johnstone, "Lady Divine" (Shilkret) (01658).
 Foxtrot—Piccadilly Players, "I'll Always be Mother's Boy" (Green).
 Foxtrot—Paul Whiteman's Orchestra, "When My Dreams Come True" (Berlin) (07024).
 Foxtrot—Piccadilly Players, "There'll be You and I" (Green). (01639).
 Foxtrot—Piccadilly Players, "I'm Tickled to Death I'm Me" (Butler).
 10.27: Cinema organ—Regal Cinema organ, "Long Ago" (Elliott) (Regal).
 Foxtrot—Paul Whiteman's Orchestra, "Reaching for Someone".
 Foxtrot—Lou Gold's Orchestra, "Walking with Susie" (Gottler).
 Foxtrot—Bert Lown's Loungers, "Big City Blues" (Gottler) (Regal).
 Waltz—Cafe Royal Band, "Forever" (Yellen) (Regal G20551).
 Waltz—The Cavaliers, "My Dear" (Kahn) (01646).
 10.45: Vocal solo—Ruth Etting, "You're the Cream in My Coffee" (De Sylva).
 Foxtrot—Paul Whiteman's Orchestra, "S'posin'" (Razaf) (07027).
 Foxtrot—Piccadilly Players, "My Mother's Eyes" (Baer) (01640).
 Foxtrot—Paul Whiteman's Orchestra, "Laughing Marionette" (Collins).
 Foxtrot—Lou Gold's Orchestra, "Breakaway" (Gottler) (Regal).
 11.0: God Save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SATURDAY, FEBRUARY 1.

- 3.0: Town Hall chimes. Selected gramophone items.
 4.25: Sports results to hand.
 5.0: Children's session, conducted by Aunt Anita.
 6.0: Dinner session—"His Master's Voice" Hour:
 London Symphony Orchestra, "Czar Sultan Suite" No. 3 (Rimsky-Korsakov) (D1491).
 Waltz—International Concert Orchestra, "Waltz Dream" (Strauss).
 6.12: Tacet.
 6.15: Suite—New Light Symphony Orchestra, "Peer Gynt Suite" (Grieg):
 (1) Ingrid's Lament; (2) Arabian Dance (C1571).
 New Light Symphony Orchestra, "Prelude in G Minor" (Rachmaninoff).
 6.27: Tacet.
 6.30: Suite—New Light Symphony Orchestra, "Peer Gynt Suite" (Grieg):
 (1) Return of Peer Gynt; (2) Solveig's Song (C1572).
 New Light Symphony Orchestra, "Prelude in C Sharp Minor" (Rachmaninoff) (Zonophone EF24).
 6.42: Tacet.
 6.45: Philadelphia Symphony Orchestra, "Danse Orientale" (Glazounov).
 Waltz—International Concert Orchestra, "Sari" (Kalman) (Zono.).
 March—Philadelphia Symphony Orchestra, "March of the Caucasian Chief" (Ippolitoff-Iwanoff) (E521).
 6.57: Tacet.
 7.0: News session.
 8.0: Relay of vaudeville programme from 3YA, Christchurch.
 10.0: "Brunswick" Dance Programme:
 Foxtrot—Red Nicholls' Five Pennies, "I May Be Wrong" (Ruskin-Sullivan) (4500).
 Foxtrot—Bob Haring's Orchestra, "How Am I To Know?" (Parker-King) (4405).
 Foxtrot—Hotsy Totsy Gang, "Can't We Get Together?" (Razaf).
 Foxtrot—Hotel Roosevelt Orchestra, "Bottoms Up" (Friend) (4516).
 10.12: Vocal—Chester Gaylord, "Sing a Little Love Song" (Conrad) (4448).
 Foxtrot—Colonial Club Orchestra, "When You're Counting the Stars Alone" (Russell) (4517).
 Foxtrot—Ray Miller's Orchestra, "Moonlight and Roses" (Lemare).
 Foxtrot—Hotsy Totsy Gang, "Sweet Savannah Sue" (Razaf) (4482).
 Waltz—Carter's Orchestra, "On Miami Shore" (Le Baron) (4471).
 10.27: Male duet—Billy Murray and Walter Scanlon, "The Whoopee Hat Brigade" (Siegel-Jaffe) (4513).
 Foxtrot—Los Angeles Biltmore Hotel Orchestra, "If I Had a Talking Picture of You" (de Sylva) (4501).

- Foxtrot—Los Angeles Biltmore Hotel Orchestra, "Doin' the Boogie Boom" (Gottler) (4502).
 Foxtrot—Los Angeles Biltmore Hotel Orchestra, "Sunny Side Up" (de Sylva) (4501).
 Foxtrot—Carter's Orchestra, "A Little Love, A Little Kiss" (Ross).
 10.45: Male duet—Billy Murray and Walter Scanlon, "Last Night, Honey" (McCarthy) (4513).
 Foxtrot—Red Nicholls' Five Pennies, "The New Yorkers" (Yellen).
 Foxtrot—Colonial Club Orchestra, "The Boomerang" (Rose) (4517).
 Foxtrot—Hotel Roosevelt Orchestra, "Bigger and Better than Ever" (Friend) (4516).
 Waltz—Montmartre Orchestra, "I've Waited a Lifetime for You" (Goodwin) (4495).
 11.0: Close down.

Sunday, February 2

1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, FEBRUARY 2.

- 3.0: Afternoon session—Selected items, including literary selection by announcer.
 6.0: Children's service, conducted by Uncle Leo.
 6.55: Relay of service from St. Mary's cathedral—Preacher: Canon William Fancourt. Organist and Choirmaster: Mr. Edgar Randall.
 8.30: (approx.) Relay of concert from Albert Park—Auckland Municipal Band, under the conductorship of Mr. Christopher Smith.
 9.30: (approx.) God Save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, FEBRUARY 2.

- 3.0: Afternoon session—Selected studio items.
 6.0: Children's song service, conducted by Uncle George.
 7.0: Relay of service from St. John's Presbyterian Church. Preacher, Rev. J. R. Blanchard, B.A. Organist and choirmaster, Mr. C. W. Kerry.
 8.15: (approx.) Studio concert by Port Nicholson Silver Band, under the conductorship of Mr. J. J. Drew, and assisting artists.
 Hymn—Band, "Neuchester" (arrgd. Scotney).
 Overture—Band, "Morning, Noon and Night" (Suppe).
 Soprano—Mrs. W. Fraser Morrish, "Alleluia" (O'Connor Morris).
 Baritone—Mr. S. E. Rodger, "Thou're Passing Hence" (Sullivan).
 Meditation—Band, "In a Monastery Garden" (Ketelbey).
 Negro spirituals—Utica Jubilee Singers, (a) "Leaning on the Lord"; (b) "Balm in Gilead" (Zonophone 5378).
 Royal Opera Orchestra, "Shepherd's Dance" (Balfour-Gardiner).
 Contralto—Miss Gladys Hibberd, "Abide with Me" (Liddle).
 Selection—Band, "Reminiscences of Sullivan" (arrgd. J. J. Drew).
 Soprano—Mrs. W. Fraser Morrish, (a) "For the Sake o' Somebody" (Traditional); (b) "Will o' the Wisp" (Spross).
 J. H. Squire Celeste Octet, "Chant Sans Paroles" (Tschalkowsky—arrgd. Sear) (Columbia 02805).
 Baritone—Mr. S. E. Rodger, "Song of the Waggoner" (Breville Smith).
 Cornet duet with band accompaniment—Bandsmen T. Goodall and W. Kay, "The Pearls" (Kling).
 Contralto—Miss Gladys Hibberd, (a) "Less than the Dust" (Woodforde-Finden); (b) "Kashmiri" (Woodforde-Finden).
 Tenor—Alfred O'Shea, (a) "The Low-Backed Car" (Lower—arrgd. Hughes); (b) "Molly Brannigan" (Stanford) (Columbia 03502).
 Fantasia—Band, "The Village Blacksmith" (Trenchard).
 March—Band, "Scindian" (Rimmer).
 God Save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, FEBRUARY 2.

- 3.0: Afternoon session—Selected gramophone items.
 5.30: Children's song service (Children of the Methodist Sunday Schools).
 6.15: Studio bells.
 6.30: Gramophone recital.
 7.0: Relay of service from East Belt Methodist Church. Preacher: Rev. W. Greenslade. Organist: Mr. A. M. Owen. Choir Conductor: Mr. J. Chaplin.
 8.15: Studio Concert:
 Suite—Royal Opera Orchestra, "Peer Gynt Suite" (Grieg). 1. Morning.
 2. Death of Ase. (H.M.V. C1298).
 8.23: Mezzo-soprano—Miss Myra Edmonds, (a) "Speak to Me" (D'Hardelot); (b) "Will He Come?" (Sullivan).
 8.29: Cello—Mr. Harold Beck, "Hamabdil" (Bantock).
 8.35: Negro Spiritual—Utica Jubilee Singers, "Climin' Up the Mountain" (trdtl.) (Zonophone 5159).
 8.38: Baritone—Mr. A. G. Thompson, (a) "There is No Death" (O'Hara); (b) "Ave Maria" (Schubert).
 8.45: Instrumental—Christchurch Broadcasting Trio, "Trio in D Minor—Andante and Scherzo" (Mendelssohn).
 8.56: Mezzo-soprano—Miss Myra Edmonds, "Bird of Love Divine" (Haydn Wood).
 9.0: Cello—Mr. Harold Beck, "Arlequin" (Popper).
 9.3: Negro Spirituals—Paul Robeson and Lawrence Brown, (a) "Ezekiel Saw the Wheel"; (b) "Hear De Lamb's A'Crying" (arrgd. Brown).

- 9.7 : Instrumental—Christchurch Broadcasting Trio. (a) "Minuet in E Flat" (Beethoven), (b) "Slavonic Dance No. 3" (Dvorak).
 9.17: Baritone—Mr. A. G. Thompson, (a) "I Gave You Roses" (Aylward), (b) "Best of All" (Raymond Leslie).
 9.24: Suite—Royal Opera Orchestra, "Peer Gynt Suite" (Grieg). 1. Anitra's Dance. 2. In the Hall of the Mountain King. (H.M.V. C1289).
 9.30: Close down.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, FEBRUARY 2.

- 3.0 : Town Hall chimes.
 Selected gramophone items.
 5.30: Children's song service, conducted by Big Brother Bill.
 6.30: Relay of service from First Church. Preacher: Rev. Dr. Hunter. Organist: Dr. Galway.
 7.45: Instrumental—New Queen's Hall Orchestra, "Petite Suite De Concert" (Coleridge-Taylor) (Columbia 02588-89).
 8.1 : Bells, organ and choir—"Easter at St. Margaret's, Westminster."
 8.7 : Pianoforte—Mark Hambourg, "Hungarian Rhapsody No. 14" (Liszt).
 8.15: Relay of studio programme from 3YA Christchurch.
 9.30: God Save the King.

Tips and Jottings

Insulating Screw-Drivers.

IT is frequently necessary to make slight adjustments within a radio set when it is in operation. It is common practice to use a screwdriver for this purpose, but, even in the hands of an expert, this may cause a short circuit that will result in burned-out valves. To prevent this, the screwdriver should be insulated, and there are three ways of doing this effectively: The first and simplest consists in carefully covering all but the edge with insulating tape; the second is to slip a length of rubber tubing over the metal shank, and the third, for small screwdrivers, is to use spaghetti.

Securing Bolts in Position.

BOLTS and screws which work loose can cause a lot of annoyance. The bolts which hold components to the panel, and the screws which fix the panel to the baseboard do not usually tend to work loose, but the grub screws in the dials of variable condensers and the nuts on the ends of moving spindles (in stud switches, for example) are sometimes troublesome in this way. An easy method of dealing with this is to dip the offending nut or bolt in shellac varnish before putting it in position. The shellac should be quite thick; if a small amount is exposed to the air in a saucer for a few minutes, some of the solvent will evaporate and the varnish will become "tacky." It will then be of the correct consistency for the purpose. If any difficulty is experienced in removing the nut or bolt subsequently, the tip of a hot iron applied to it for a moment will free it.

Adjusting Screened-Grid Voltage.

QUITE a large number of receivers employing one or more stages of screen-grid radio-frequency have some means of making critical variations to the voltage applied to the screening grid. Sometimes a separate tapping is provided, and this is satisfactory if small voltage steps can be made on the B battery or eliminator. Another good scheme, though, is to place a variable high resistance in series with the screening-grid connection. A maximum value of 50,000 or 100,000 ohms is advisable, and the junction point of the resistance and the screen should be earthed with a condenser, 2 microfarads being a suitable value. The great point about this little control system is that you can alter the work-

ing characteristics, and, indeed, the internal resistance, by varying the screening-grid voltage. The effect of thus varying the "inside" of the valve is the same as with ordinary three-electrode valves. The actual amplification depends on the ratio between the impedance of the anode circuit and the valve impedance, and in practice it is a great convenience to be able to have the valve-impedance factor under control. The normal B voltage used with most screen-grid sets is 100 to 150, and a 50,000-ohm resistance is sufficient to bring this down to the required value for average screen-grid valves.

Preparing Coil Formers.

SOME constructors find it rather difficult to cut off a length of cardboard or ebonite tubing neatly and straightly. The best way to set about the job is this: Make a small mark (use a scribe in the case of ebonite, and a pencil for cardboard) at the place where the cut is to begin. Measure the distance from this mark to an end of the tube, which is perfectly straight. Go round the tube, making a number of other marks at intervals at the same distance from the end of the tube as the first one. If these are fairly close together you will not have any difficulty in joining them so as to make a continuous guide line right round the tubing. Now place the tube on the bench and start the hacksaw carefully on the marked line. As soon as you have cut through the wall of the tube at this point turn the tube slightly in a direction away from the body. As the hacksaw blade should be set to cut on the thrust you can thus see that the teeth meet the guide line as they make the cutting stroke. Cut only with the "heel" of the blade, holding the saw so that the forward portion of the blade does not touch the material either on the thrust or on the draw. Continue to turn the tube whilst cutting until you have gone right round the guide-line. It will then be found that the cut has been made perfectly straight. The end of an ebonite tube should be trimmed up after cutting with a fine file; for cardboard tubing it is best to use a very sharp knife for the purpose.

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Plug-in Coils

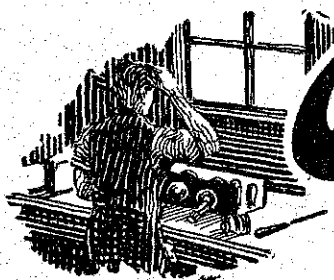
ON short-wave receivers utilising ordinary plug-in short-wave coils it is the increasing practice to fix the baseboard aerial coil-holder by one screw, allowing it to be moved to vary the coupling between the aerial and the grid or reaction coil. This enables "flat spots" on the tuning condenser to be obviated, and is more efficient than putting a condenser in the aerial lead. When removing coils, special care has to be taken owing to the fact that, fixed to one side only, the holder is likely to be pulled from the baseboard or the screw-hole broken. Also the coil is not always in line with the others when in a swivelling holder, as the one screw tends to pull the holder to one side. If a piece of celluloid, mica or similar insulating material is cut in a semi-circular shape and fixed with screws, to the baseboard over the unscrewed leg of the coil-holder the coil may still be swung round, but the holder is as firm as when fixed with two screws.

Aligning Gang Condensers

ALIGNMENT of gang condensers can be readily checked with a simple tool made from a 5in. piece of ebonite rod with a 1½in. heavy copper wire ring fastened to one end and an old condenser plate fastened to the other end. This tool may be used to add an extra plate to the moving plates of each condenser in the gang by placing its condenser-plate end in parallel with the fixed plates and touching the moving plates. If the signal then increases in strength, the condenser is low in capacity and its trimmer should be tightened. If the signal decreases in strength the condensers are approximately in alignment. After checking for low capacity, insert the ring end of the tool in the centre of each radio-frequency coil. This should decrease the signal strength. If the signal increases, the capacity is too high and should be lowered by adjusting the trimmer or bending the outside plate until a decrease in signal is experienced. The condenser-plate test should then be repeated so as to be sure that

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Questions and Answers



Aerial Dimensions.

WHAT should be the height and direction of an aerial to get the best results from all quarters? asks "C.T.G." (Blenheim).

A.: The height should be 40ft., although 30 gives good results. The length should be from 80 to 100 feet long, including the lead-in and ground wire. The direction depends upon the stations you wish to receive. If it is the New Zealand stations an aerial running north and south with a lead-in in the centre; if the Australian stations are preferred, one from north-west to south-east; while the American stations come in well with an aerial running from north-east to south-west.

Crystal and Two-Valve Set.

I WISH to construct the crystal and two-valve amplifier described in "All About the All-Electric," and would like to know how this compares with a three-valve set.

A.: As you live near a broadcasting station, you would find that unless you use a wave-trap the three-valve set would be less efficient than a crystal and two-valve amplifier. If a wave-trap were used, the best results for distance would be obtained from a three-valve set, as a crystal set is rarely of any use for more than the local stations.

A.C. Short-wave Problems.

"D. L.C." (Frankton Junction), who has constructed an A.C. short-wave adaptor, and is not getting the best results, wishes to know the following:—

1. A variable condenser, 0.0014, could not be procured, would a .0001 do instead.

A.: There is very little difference between these two condensers. The tuning will be slightly altered, but not enough to notice.

2. A variable resistance is shown shunted across the tickler. The specification states that this must be 0.8-0.000 ohms. I have been unable to procure one of this value, so am using 0.2-0.000 ohms, but the results are not satisfactory.

A.: We have returned your diagram with an alteration, and for the reaction control a 0.50,000 ohm. resistance should be employed. Smooth reaction cannot be obtained with much less value than this.

3. Could I use a fixed resistance of 6000 ohms. in series with the variable 2000 ohms. in order to bring the two up to 8000?

A.: This arrangement would not give sufficient variation to allow of smooth regeneration control.

4. For the coils I am following the details given in "Radio Listeners' Guide." Are these alright?—"Yes."

Another Short-wave Circuit.

HOW can I alter the adapter described in the "Listeners' Guide" for A.C.2 asks "A.E.A." (Avondale).

A.: Connect the cathode of the valve-holder in the adapter to earth where A— is shown in the diagram. Connect this to the grid and cathode prongs of a valve base. The filament wires will run from the valve base directly to the valve, and will in no way be connected to the remainder of the circuit. They should be run in twin-flex. The A.C. plate connections are as shown for D.C. (A diagram of an A.C. valve socket with the connections clearly marked was published on September 20).

2. Can an adapter be prevented from howling? It is commercially made.

A.: This is probably no fault of your receiver. Take the adapter back to the dealer who sold it to you, and ask that it be examined or tried out on another receiver.

3. Could the detector valve be neutralised to prevent it howling?

A.: A plain detector cannot be neutralised, for this process can take place only when one or more stages of high frequency are used.

To get Greater Volume.

I HAVE a screen grid 4-valve receiver, and I wish to get greater volume. Could I add a stage of untuned radio frequency either before the screen grid or following?—"M.L." (Hastings).

A.: The simplest way to improve the sensitivity would be the addition of another audio stage. At present you have the maximum number of transformer coupled stages, so that it would be necessary to use a resistance coupled stage immediately following the detector. Another method would be to use an untuned stage in front of the screen grid valve. This might conveniently be the R.F. booster described in the "Radio Record" some time ago. It is possible that trouble would be incurred by instability.

2. What grid bias would be required for two B405 valves used in push-pull, with 150 volts on the plate.

A.: 18 volts is necessary to bias to the mid-point of the curves.

2. What is the output of these valves used in push-pull?

A.: About 2 watts.

3. Will I get better results if I took the unit out of a commercial speaker and fitted it to a linen diaphragm?

A.: It is most unlikely. We do not advise you to tamper with commercial products.

Building the Browning-Drake.

I PROPOSE to build a battery model Browning-Drake, and before doing so, would like to be cleared up on the following points, asks "B. D. Maximum" (Masterton):—

1. Do you recommend the incorporation of the screen-grid?

A.: No. Many amateurs experience difficulty with this valve, so that if you have not experimented before we should advise you not to start now.

Questions and Answers

READERS of the "Radio Record" who are in difficulties about reception or set construction are invited to write to our "Questions and Answers" department for help. We particularly wish to assist those who know little about radio, as very often there is some very slight trouble which spoils completely one's enjoyment of the programmes.

Correspondents are asked to observe the following courtesies:

1. Write legibly.

2. Make your questions brief and to the point; do not make apologies for writing, and, where possible, tabulate.

3. Do not ask for a reply by post unless a stamped and addressed envelope is enclosed. Even in these circumstances, we reserve the right to answer any question through our columns.

4. Do not ask us to design circuits or send detailed lay-out diagrams; but we can offer advice regarding circuits.

5. Address all technical correspondence: "The Technical Editor, P.O. Box 1032, Wellington."

2. Do you recommend the use of push-pull audio? If so, would two Pentodes give high amplification?

A.: We advise push-pull amplification, but not with two Pentodes. Such an amplifier can give good results, but rarely in the hands of amateurs.

3. Would it be possible to convert this set later to A.C. operation per medium of A.C. harness, A.C. eliminators, or a power pack, and which would you recommend?

A.: Yes, it would be quite simple to convert, as described in "All About the All-Electric." The use of the power pack and rewiring would give the best results.

Phones with an A.C. Set.

EXACTLY how can 'phones be used with an A.C. set? asks "H.D.H." (Nelson).

A.: There are two methods. Remove the 226 valve and put one 'phone tip

into the grid terminal and the other to earth or the metal-work of the receiver. The other method giving slightly louder signals is to connect each tip to the primary of the second audio transformer. This is the side of the transformer nearest the valve.

An Eliminator Problem.

I AM building the "B" eliminator described in the "Radio Listeners' Guide," writes "R.H.H." (Lower Hutt), but do not know the values of each variable output resistance.

A.: You would have to give us more particulars before we could state the exact resistances. Your best plan would be to build up the voltage divider as pictured in "All About the All-Electric," page 46. A fixed voltage divider may be obtained commercially made. To obtain grid bias a potentiometer 0-3000 ohms will give ample bias for any valve.

2. How can I wind the filament to obtain the centre tap?

A.: If you are making up the eliminator as described in the "Listeners' Guide," you will require 31 turns with a tap at 15½ turns. If this arrangement causes humming, put a potentiometer of about 30 ohms across the filament supply and use the sliding contact as a centre tap. The centre point would be that to give minimum hum.

Set Unbalanced.

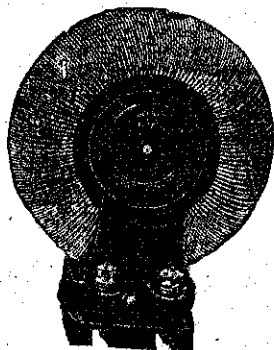
FOR some unknown reason, my factory-built receiver became unbalanced without any apparent reason, writes "L.C." (Waverley). It all happened between switching off one day and switching on the next. When I turned the set up to investigate, I could find nothing shorting, except a flower petal lying between the aerial and C—. After this the set went well again. Could the petal have been the culprit?

A.: In all probability. There was a certain dampness in the petal and a leakage was occurring, resulting in instability. It is possible that a small body such as a blob of solder may have become loose and have short-circuited the neutralising system. This would have slipped out unnoticed.

Audio Instability.

I AM using a 5-valve Neutrodyne with two speakers, writes "B.T." (Green Island). I find the set works well from four valves, but the fifth valve causes the set to howl.

A.: Reverse the connections to the last audio transformer, and if this does not cure the trouble, try a resistance of about ½ megohm across the secondary of the last transformer, or a large by-pass condenser (1 mfd. or more) across the speaker terminals. See that the grid bias is adjusted properly. It is possible that your eliminator will not deliver sufficient current for five valves. If this is the case, it will be necessary to bias the second audio valve, and if the trouble then does not cease, the radio valves will need biasing, for by this method more current is made available for the last valve. You should have stated the make and the size of your eliminator.



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"B" Eliminator Trouble.

I HAVE a "B" battery eliminator which has burned out several valves, writes "S.P." (Wellington). I returned it to the dealer and received another, which did the same thing.

A.: If your set worked all right with batteries you may take it for granted that you have either been very unfortunate in securing two defective units or are connecting it up wrongly. The next time take your amplifier to the dealer and get him to connect it up and get it working before you take the unit away.

Aerial Troubles.

"BROWNING-DRAKE" (Miramar) asks the following questions regarding aerials:—

1. Is there any advantage in having one end of the aerial lower than the other?

A.: No, it is the average height above the ground that counts.

2. Is it advisable to use insulated or plain wire?

A.: It is immaterial, though enamelled wire prevents corroding.

3. What should be the direction of the aerial for outside stations?

A.: It depends upon the stations to be received. For the Australian stations use an aerial running north-west to south-east; for the American stations use one running north-east to south-west.

4. I am troubled with tramcar interference, and although I have erected my aerial directly north and south and the lines run east and west I cannot lessen the noise.

A.: You should communicate with the Power Board, as it is clearly a case for them. If they cannot do anything for you, then use the usual remedies: a counterpoise earth, a shorter aerial, and even an indoor antenna. Lessening the coupling in the antenna circuit will quite frequently increase the selectivity, but will reduce the volume. A loosely-coupled aerial coil consists of a separate coil between the aerial and the earth, which is mechanically separated from the grid coil. Wind a piece of insulation tape around the existing aerial coil and wind as much 24 gauge D.C.C. wire on this as the width of the tape will permit. Secure the ends and carry one to the aerial and one to the earth. Leave the existing earth connection, but disregard the tapping for the aerial now provided.

5. I am using Mullard and Radiotron valves. Do you think Philips would improve the set?

A.: No. There is practically no difference between first-grade valves such as these.

6. We regret we cannot decipher your writing in this question. The wording appears somewhat vague.

Another Aerial Problem.

I HAVE a six-valve commercially-built set, writes "Dead-Spot" (Blenheim), and although I have a good aerial running north and south I cannot pick up the American stations.

A.: That is nothing unusual. The writer has a still better set, a still better aerial, and yet cannot pick up the American stations. Very much depends on your locality and your patience.

Useful Tips

ONE of the best methods of arranging a loudspeaker extension is by means of a plug and jack, the jack being of the type in which the circuit is closed when the loudspeaker plug is withdrawn from it.

KEEP a watch to see that sediment does not form at the bottom of your accumulator. (This is often a sign that it is being charged wrongly.)

An Electrical Mystery**Power from the Earth**

PROGRESS in the scientific world has been made with almost unbelievable rapidity during the past 20 years, but occasionally natural phenomena, inexplicable even in the light of present-day knowledge, mystify scientists. Such an incident occurred recently when an American radio experimenter was attempting to connect a power speaker to an electric light socket.

The experimenter in some way while handling the wires mixed them and introduced a ground wire. He then turned off the chandelier switch for fear he would receive a shock, but instead of plunging the room into darkness it was left lighted as before. At first he thought the switch was not working, but tests proved that it was in perfect working order. Then he discovered that when he disconnected the ground wire the light went off.

He turned off the chandelier switch and even unscrewed a fuse from the fuse box, completely cutting the circuit. When he connected his ground wire the light flashed on as before. At first he thought he must be completing the circuit through the ground, but then he learned that alternating circuits from the power-house are not grounded. There is an outgoing wire from the power-house and a return wire to complete the circuit through the generator.

Then he discovered still another startling fact. When he connected a second light bulb in series with the ground wire it also glowed—and more brightly than the one in the chandelier above his head. He studied this out and came to the conclusion that "his" electricity was coming from the ground—which he knew would startle the world if it were true.

To make sure that he was not using current from the electric light company the experimenter watched the electric meter. The thin steel wheel that always turns slowly when current is being used was motionless. He took his wire to a college and demonstrated for a professor. It worked there as well as at home. The professor tested the current with fine instruments. He could see nothing wrong or explain where the current was coming from.

The experimenter demonstrated similarly for other professors, and all who saw the demonstration were puzzled, but they expressed the opinion that the phenomena could be explained by present electric laws.

Some of the demonstrations are as follows:—

A compass is held to the ground wire while the light in the chandelier is burning and the needle does not deflect towards the wire. Then he holds the compass near a circuit fed by a dry cell and the needle instantly turns at right angles to the wire.

A solenoid coil containing a 40-penny nail is connected in his circuit and demonstrates that it will not pick up the finest iron filings. Then he connects the same coil to the dry cell and it picks up a generous portion of the filings.

He holds two bare wires in his hands and connects them with impunity.

Sparks flash when the ends touch, but there is no appreciable heat, and only the slightest shock is experienced. This made Mr. Sherman realise that he has a form of electricity that will light a 110-watt lamp and yet would be harmless to people.

With the socket switch turned off and the fuse pulled from the box connected with the electric meter, he makes one, two, or three lamps glow with light strong enough to read by with comfort.

It is argued that the electricity is coming from the ground because the lamp nearest the ground in the circuit glows the brightest, the next one less brightly, and the upper one least of all.

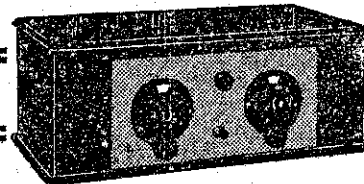
Professors declare that the simple experiments are faulty; that the man is getting alternating current from that source. Still they have announced that they are planning exhaustive sets of the hookup to determine whether he has discovered a new principle, or if this is merely a freak performance.

Construction Hints**A Tapping Hint.**

IF you have a considerable number of holes to tap in a piece of ebonite, don't bother about the ordinary tap holder. Drill all holes, first of all, to the proper size, then mount the tap in the chuck of the hand-drill. Don't try to drive the tap through "in one." Taking care to see that you are going straight, give it one turn or a little more, then turn backwards to allow the tap to clear itself of dust. Now go forwards again for a few turns, turn back to clear once more, and then drive straight through. With the hand-drill one can easily tap three or four 4 B.A. holes in a minute in $\frac{1}{2}$ in. ebonite.

A Useful Coil Rack.

EXPERIMENTERS who are constantly changing coils of the plug and socket variety will find it very convenient to buy from any hardware shop a cheap wooden towel airer of the kind which screws on the wall and has three or four pivoted arms. One of these arms can be used for carrying aerial coils, another for short-wave coils, and a third, coils for the long-wave band, while if there is a fourth, centre-tapped coils can be kept separately. Such a device, screwed to the wall above the experimenter's table, not only saves a great deal of room but greatly facilitates work.

Spans the Two Hemispheres

THE
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Screen-Grid 3

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

Price

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Short-Wave Coils and Accessories extra.

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

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

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Calculating Power Output

Continued from Last Week

By "Cathode"

WE have now reached the part of the subject which the reader will probably have most difficulty in grasping; namely, the means of securing and calculating the maximum output available without exceeding the limit of second-harmonic distortion previously mentioned as being permissible, i.e., five per cent. Involved in this question is that of the determination of the load resistance necessary for maximum output.

There are two cases to be considered. Firstly, the case in which the voltage approaches the maximum permissible, and the output is limited by the plate dissipation. Secondly, the case where the plate voltage is low and the most suitable load can be used without over-running the valve.

In the first case, the initial operating point can readily be determined in the manner previously described. As a refresher examine the plate voltage plate current family for the UX842 in Fig. 3. Here the permissible plate dissipation is 12 watts and the maximum safe plate voltage 425; with this voltage the plate current must not be greater than 28 milliamperes if the rated dissipation is not to be exceeded. To keep the plate current at this value with the plate voltage specified a negative grid bias of 93 volts is shown to be necessary by the curves.

There are two limits which must be observed to avoid distortion: the grid must not become positive and so draw current, and it is necessary to operate on the straight portion of the curves. Fig. 3 seems to indicate that it would be inadvisable to permit the plate current to fall much below 10 milliamperes at its maximum, as the "curves" begin to justify their name below this value. If the filament of the valve is heated

with direct current, the grid will start to draw current at zero grid voltage; but if the filament is heated with alternating current, it will not be possible to go to zero voltage but the point at which grid current commences to flow will be approximately 4 volts negative (the UX842 has a 7.5 volt filament).

Assuming d.c. on the filament, and utilising the whole of the grid base, it is clear that a bias of .93 volts will permit a swing from 0 grid voltage to twice .93, or 186 volts. No curve for a negative grid voltage of 186 is shown in Fig. 3, but its position may be judged and the lower plate current point set on this curve at the value of 10 milliamperes previously determined as the probable lower limit for distortionless operation. A straight line is then drawn from this point through the operating point previously plotted and continued to the 0 grid-voltage curve. This line is shown dotted in Fig. 3.

It is now necessary to determine the percentage of second-harmonic distortion, for the figure of 5 per cent. must not be exceeded. Percentage distortion is usually calculated from the equation:

$$\frac{1 \text{ max.} + 1 \text{ min.}}{2} - 1 \text{ mean} \times 100$$

$$1 \text{ max.} - 1 \text{ min.}$$

Where 1 max.=plate current at least negative grid voltage, 1 min.=plate current at most negative grid voltage, and 1 mean=steady plate current with no signal input (initial operating condition).

In the present case, of course, 1 mean is 28 milliamperes, 1 min. 10 milliamperes, and 1 max. is seen from the intersection of the dotted line with the curve corresponding to zero grid voltage to be just short of 48 milliamperes. Calculation will show that the second-harmonic under these conditions is less than 1 per cent., so, as the permissible amount is 5 per cent., a lower minimum value of plate current can be chosen and the load characteristic line redrawn. Actually, in this case, a minimum plate current of 3 milliamperes may be used without generating too great a second-harmonic, and the solid load line (upper) of Fig. 3 is the result.

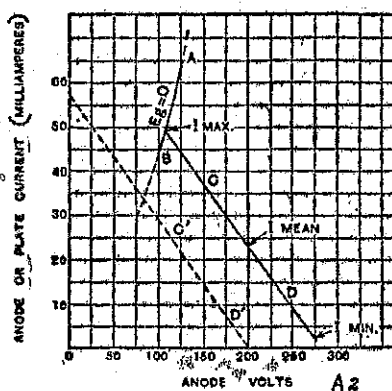
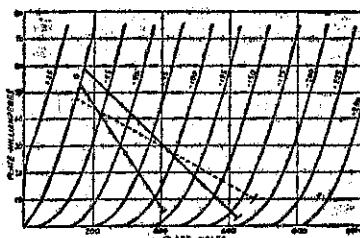


Fig. 3.—Plate Voltage-plate Current Family for the 842.

The grid voltage at which the curves were made are shown on them. The oblique dotted line is the preliminary load line drawn through the operating point and the 10-milliamperes current point at twice the operating grid voltage. The distortion under these conditions was quite small and a lower limit of minimum plate current was chosen. The most suitable line for a plate voltage of 425 is the solid one passing through the same operating point as the dotted line. The other load line is for a plate voltage of 300.

Diagram 4, lower.

THE process of trial and error involved in the above method may be considered unduly laborious. The work may be rendered easier by the use of a new device known as a "five-per-cent. distortion rule." This piece of apparatus is nothing but a short rule which may be conveniently made from a scrap of white cardboard. At a point not far from the centre a zero is marked, and from this zero divisions are marked off on either side; the size of the divisions is immaterial, so long as they can be conveniently read, but their relation one to the other is important. The divisions on the right-hand side of the zero are 9-11ths of those on the left.

That is to say, if the divisions on the left-hand side are each 1.1 inches, the divisions on the right-hand side will each be 0.9 of an inch (in practice the centimetre is a more convenient measurement than the inch).

The operation of the rule is simplicity itself. The two plate-voltage plate-current curves corresponding to zero grid voltage and twice the operating grid voltage are first distinctively marked (say with coloured ink). The central zero of the distortion rule is then placed on the predetermined operating point and the rule rotated about this point until the readings on each side of the rule where its edge intercepts the two distinctively marked curves are the same. The load-line is then drawn in along the edge of the rule. The convenience of this little instrument is particularly marked where, instead of having the initial operating point determined by the plate dissipation, a plate voltage considerably lower than the maximum permissible is employed; in such cases, a quite extended process of trial and error is necessary to determine the best bias and load, and the distortion rule eliminates most of the labour and calculation involved.

(To be continued next week.)

Useful Hints

Handling Components.

IN the handling of wireless components generally it is not unusual for familiarity to breed, if not contempt, at least a certain amount of carelessness. Coils of the standard plug-in type, for instance, should always be gripped by the plug portion when inserted in or withdrawn from a holder. Care is also needed in handling low-loss coils on "skeleton" formers, since ebonite is notoriously brittle material. A skeleton cylindrical former, for example, should preferably be grasped by the ends, if not too long for the span of the hand. Too firm a grip round an interchangeable coil of this type may displace the winding or may even break the former, especially if the coil is tight in its mount and tends to come away rather suddenly when withdrawn.

Preventing Corrosion.

A PASTE that will prevent corrosion at battery terminals may be prepared very cheaply at home. Corrosion is checked by the use of grease or vaseline, but although this prevents creeping of the acid, some alkaline preparation should be used in connection with either to neutralise the acid. Fill a 1-pint cup with a cheap grade of vaseline, transfer this to a pan and melt it over a slow fire. When melted, add three tablespoonsful of common baking-soda, remove the pan from the fire and stir the mixture until the soda is thoroughly dissolved. Spread the paste over the battery terminals after they have been thoroughly scraped and cleaned. Any acid solution that has been sprayed over the top of the battery when charging, or spilled when a hydrometer reading is taken, should be carefully removed with a rag moistened with a weak solution of household ammonia.

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Laboratory Test

Atwater Kent Model 60

C. & A. ODLIN, LTD., have supplied us with an Atwater Kent receiver, Model 60, and during the last few weeks we have been able to test this to our satisfaction. In connection with this receiver, it is interesting to note that it was the first of its type introduced into the country.

The circuit comprises three stages of a.c. screen grid, detector (227), resistance coupled to the first audio, also 227's and two 245's in the last stage. Rectification is accomplished by a full wave 280. Detection is carried out by the grid condenser method.

On lifting the lid of the receiver one cannot help noticing the very neat and efficient appearance. All the components are shielded in uniformly enamelled metal covers. The valves are not an exception. The result is a very robust receiver, perfectly shielded, and humless. On reversing the receiver, and removing the protecting plate, the wiring is disclosed. The few components in this part of the receiver are well constructed so that trouble in this direction will not be likely.

There are three controls: the tuning control, which, by means of a brass belt, moves the four tuning condensers and the illuminated dial graduated in degrees and kilocycles; a volume control, and a local station switch. Our tests reveal that the marked frequencies were slightly in excess of the frequency of the stations received. Volume is controlled by a variable resistance connected in the circuit of the auxiliary grid of the second and third radio amplifiers.

The local station switch taps the primary inductance of the second R.F. transformer, so that either the whole or part of this coil can be placed in the circuit at will. Volume is thus greatly reduced without introducing distortion. On the local station, however, it was found that other means had yet to be taken to sufficiently subdue the signal. Connecting to the terminal marked "short antenna" a length of insulated lighting wire and twisting this round a convenient place outside, we found formed a very effective aerial for use on the local station. Even then the set worked better—that is, volume was more controllable and quality better maintained when the earth connection was removed.

The sensitivity of the set is greater by far than that of our standard model, in fact it surpasses in this quality any set we have yet tested. During the summer months in which reception is notoriously bad a fairly representative log of stations was received. A calibration curve is published showing the major stations received and their positions on the dial. Far more volume than required was obtainable from all New Zealand "A" stations, as well as on several of the smaller. Christchurch could be brought in on the very small aerial previously mentioned, and

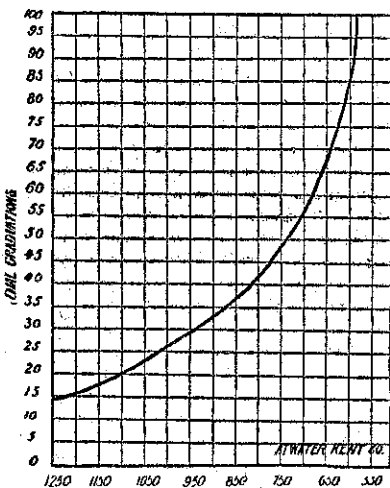
by using this static was very much subdued.

Following is a selection from the stations received, with the dial reading for each:—2YB, 13; 1ZB, 20; 2ZF, 23; 2UE, 24; 3YA, 27; 1YA, 33; 2BL, 36; JOCK, 39; JOGK, 47; 4QG, 48; 2YA, 55; 2FC, 65; 4YA, 67; 3AR, 75; 2ZK, 80; 7ZL, 88.

Selectivity was good and by using a 130-foot aerial, 2FC could be brought in when 2YA was operating.

The tested voltages were as follow:

	Screen Plate
1st Radio Frequency	140 180
2nd Radio Frequency	10-120 165
3rd Radio Frequency	10-120 165
Detector	110
Audio	160
Power	260
Filaments (average)	2.45



Calibration curve, showing the relationship between frequency and dial reading.

There is an entire absence of hum while the set is perfectly stable even on the higher frequencies.

Accompanying the set was a dynamic speaker which can be used with no other; likewise no other speaker can be used with this set. Being low set, the speaker has a delightfully mellow tone.

A.C. Valve Response

Noticeable Time-Log

WITH a battery-operated set, throwing the switch that turns on the current results in immediate action. If the set is tuned to a station, music, or speech issues from the loudspeaker in a fraction of a second. This is not true of modern sets operated by alternating current. There is a lapse of anywhere from ten to thirty seconds between the throwing of the switch and the first sound from the loudspeaker. The delay is caused by the slow heating of the relatively thick cathode element in valves such as the type 227 and 224. Many attempts have been made to decrease the time lag, but an improvement in this direction is worth while only if it can be accomplished without affecting the efficiency of the valve and the length of its life. In any event, decreasing the time lag below the present figure is of relatively little importance. Most people will not object to waiting a fraction of a minute for the start of a period of musical or other entertainment to which they may listen for several hours.

RADIO DIRECTORY

What to Buy and Where

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- AMPLION LOUDSPEAKERS** . All Radio Dealers.
- BURGESS RADIO BATTERIES**, All Radio Dealers.
- CROSLEY RADIO RECEIVERS** G. G. Macquarrie, Ltd.,
120 Willis Street, Wellington.
- CROSLEY RADIO** Abel, Smeeton, Ltd. Rep.: G. MOSE,
James Street, Mangarei.
- CROSLEY RADIO** Abel, Smeeton, Ltd.,
27-29 Customs St. E., Auckland.
- EMMCO RADIO PRODUCTS** Johns, Ltd.,
Chancery St., Auckland.
- EMMCO RADIO PRODUCTS** Thos. Ballinger & Co., Ltd.,
Victoria St., Wellington.
- EMMCO RADIO PRODUCTS** L. B. Scott, Ltd.,
Worcester St., Christchurch.
- KING RADIO RECEIVERS** F. J. W. Fear & Co.,
63 Willis Street, Wellington.
- LISSEN RADIO PARTS AND KITS** All Radio Dealers.
- MAJESTIC RADIO RECEIVERS** Kirkcaldie & Stains,
Chief Wellington Agents, Lambton Quay.
- MULLARD VALVES** All Radio Dealers.
- PILOT 1930 PARTS AND KITS, ETC.** Abel, Smeeton, Ltd.,
27-29 Customs Street East, Auckland.
- PILOT 1930 PARTS—PILOT SUPER WASP KITS, GILFILLAN, KELLOGG and ATWATER KENT SETS** Harrington's, N.Z., Ltd.,
133-140 Queen St., Auckland.
40-42 Willis St., Wellington.
- RADIOLA RECEIVERS** and Farmers' Trading Co., Ltd.,
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COUNTRY TOWNS

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

Have you obtained your copy of the "N.Z. Radio Listener's Guide"?

Dealers and booksellers 2/6; Post Free 2/9—P.O. Box 1032, Wellington. Available everywhere.

Reaction Condensers

A Safety Device

WITH regard to reaction condensers, in some circuit arrangements these may have a large voltage—the whole voltage of the B battery—across from one set of vanes to the other, and therefore, unless some safety device is included in circuit with the battery and condenser, it is clear that serious damage may be caused by an accidental contact between a moving vane and a fixed vane. A fuse is perhaps the simplest form of protection, and it has the advantage that, being of comparatively low resistance and free of inductance, it does not interfere with the other adjustments in the circuit. An alternative protection is a fixed condenser—which may be of the mica variety—introduced in series with the variable condenser. Of course this means that we are again dependent upon the insulation of the fixed condenser, but generally the insulation of a good quality fixed mica condenser may be relied upon with much more certainty than that of a variable air condenser. The introduction of the fixed condenser in series with the variable condenser means that the setting of the variable condenser will be altered, and if the fixed condenser is of too small a capacity, it may be that the desired resultant capacity is thrown outside the range of the variable condenser. A capacity of .002, even up to .005 microfarad, may be used for the fixed condenser, and it is important also that, in addition to an adequate capacity, this condenser should have mica insulation. If the condenser is not of appropriate capacity and quality, the overall amplification will be reduced and sharpness of tuning will be lost.

WANTED AND FOR SALE.

For column of casual advertisements see page 32.

Oscillation, Capacity and Inductance

Explanation by Sir Oliver Lodge

I SUPPOSE everyone knows that a circuit which includes both inductance and capacity is liable to oscillate, at a certain definite frequency, dependent on the produce of the inductance and capacity (writes Sir Oliver Lodge in "Popular Wireless"). If you double one and halve the other, the rate of oscillation remains the same. If, on the other hand, you halve both, the rate of oscillation would be quadrupled: it would give what in sound is equivalent to a double-octave rise in pitch. Increasing either the capacity or the inductance lowers the rate of vibration.

By employing a very big condenser and a coil with a great number of turns, one can reduce the rate of vibration actually down to acoustic frequency. Electric rates of oscillation are usually extremely rapid, a hundred-thousand a second, for instance. But with a very big coil and a very big inductance, the rate of oscillation can be reduced to a few hundred a second; and any vibration at the rate of a few hundred a second, if it is made to disturb the air, will give a musical note.

Whistling Sparks.

An experiment of that kind is best performed with a Leyden jar as the capacity, or with some other strong condenser that can stand a big potential, so that it will give a spark. A spark is a means of disturbing the air: it heats the air, and usually gives a sort of crack, which is quite audible. But if the spark is taken from an oscillating circuit, one that vibrates about six thousand or two thousand a second, you won't hear a crack, you will hear a whistle, or even a musical tone of lower pitch than that.

Last century I used to demonstrate these whistling sparks, with a battery

of Leyden jars as the capacity, and with a great coil of wire as the inductance. One could thus bring the spark-note down till it corresponded with some of the notes on a piano.

In some engineering undertakings these electric oscillations or surgings occasionally gave trouble. When Dr. Ferranti, long ago, laid large electric underground mains from Deptford to London, the lines had a great capacity; there was also a considerable amount of inductance in the big dynamos employed.

So the result was that the circuit had a natural rate of vibration, rather slow but decidedly powerful; and accordingly the voltage rose above what was provided for, and was liable to burst the insulation, until proper precautions were taken to combat the tendency.

If you have a long bath half filled with water, and tip the bath lengthways, the water oscillates to and fro, and may easily splash over the edge. That sort of thing happened in the electrical case. The surging electricity overflowed or splashed over or burst through the insulation; or, if it didn't, there was a danger of its doing so. This was very instructive, and excited a good deal of interest.

The same sort of thing would be less likely to occur in a land line, because a land line has much less capacity, and therefore the energy stored would be less. That is one reason why in long-distance electric power transmission engineers prefer overhead lines to underground mains! Any surgings that may be encountered are less likely to be violent.

One can get surgings even in a land line. I used to stretch long copper wires—if you can call them wires—as thick as one's finger, round a big theatre, excite high voltage surgings by means of Leyden jars, and show that the sparks that could be obtained from the long leads were very much longer than corresponded with the applied voltage.

Electric Momentum.

If the natural length of spark was $\frac{1}{2}$ inch the surgings might give a spark as much as 3 inches by the accumulated momentum. For it must be understood that the magnetic field which surrounds a current confers momentum upon it; and when this is combined with the elastic storage of energy called capacity, it behaves like a loaded spring which can oscillate to and fro with violence, the rate of oscillation depending on the elasticity and the load. The load or the inertia corresponds to inductance in the electrical case, the elasticity corresponds to capacity.

I have seen the effect of these electric surgings in some of the early large-scale radio aerials, when a great steel

Tips and Jottings

Panel Appearance.

SO far as screw holes are concerned, most panel-mounting components are now so made that the knobs cover any fixing devices, and the only screws exposed are those holding the panel to the brackets and securing it to the front edge of the baseboard. If the holes are in all cases counter-sunk somewhat deeper than necessary in order to make the screwheads flush, the small depressions above them can be filled up with wax, cut off with a sharp knife, and polished so as to be quite indistinguishable from the panel material. It is actually easier to do this filing and polishing on mahogany and walnut-finished panels than on plain and highly-polished black ebonite, for a little red and brown wax can be blended to match the pattern perfectly.

Improving Tuning Limits.

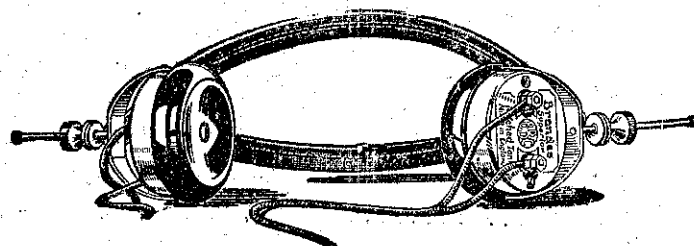
IN many old-fashioned sets failure to tune down below a certain limit is due to the fact that the variable condensers have what we should call nowadays an unduly high minimum capacity, though it was regarded as very low in the early days of broadcast receiving equipment. To substitute up-to-date variable condensers for old ones is a perfectly straightforward job which can be carried out in a few minutes in most sets. The expense involved is quite small, for the price of condensers to-day is astonishingly low considering how well they are designed and made. The best type to choose for the set intended for the reception of foreign as well as home stations is undoubtedly the straight-line frequency since this gives an almost equal separation of stations from near the bottom to near the top of its tuning limits. No condenser, whether square-law or S.L.F., is likely to give a perfectly straight-line graph between zero and maximum, but when good patterns are used with suitable valves and circuits the curved portions of the graph will be very small and its straight portion very long in comparison.

most formed an appendage to the circuit. An electric current surged up and down in this mast with such violence that blocks of timber placed against the mast to strengthen it in a storm were charred and smoked, and might have caught fire.

This was notably the case in a mast installation arranged by Dr. Goldschmidt near Hanover; and very strong insulators had to be employed in order to prevent their destruction. Wireless operators, as a rule, are not concerned with these violent effects; the self-generated oscillations at a receiving station only produce howling. But the fundamental principles are much the same, whether great or small power is employed; and the rate of oscillation can be reckoned in the same sort of way.

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BURGESS RADIO BATTERIES

Better Wireless Reception

A New Super-Selective Receiver

THE problem of reducing interference between wireless stations is now so acute in Europe and America that any proposal for relieving what is often called the congestion of the ether demands serious attention. Broadcasting or telephony stations are known to be the chief offenders in this overcrowding, in that, when transmitting speech or music, they occupy not only their nominal frequency but also a range of frequencies both above and below this nominal figure.

Some years ago a great step forward was made in solving this difficulty by Dr. J. R. Carson, of the American Telegraph and Telephone Company, who pointed out that it was not necessary to transmit the whole of this range of frequencies in order to convey the speech or music. It is only necessary to send a part of it, or what is called technically one of the side-bands. Working in this way it is possible to use more selective receivers, which reduce the amount of interference, both natural and artificial, which enters the receiving set.

This method of communication is known as single side-band telephony, and is used in the Trans-Atlantic telephone service between America and England. Up to the present, however, its use has not extended to broadcasting because of the more complicated receiving circuits required.

The announcement was made recently of the development of another system which is designed to assist in the solution of the same problem. With the Stenode Radiostat system of communication it is claimed that the "spread" of frequencies can be enormously reduced, a reduction of 50 times being mentioned. Such a possibility would be denied by most technical experts, for it is an axiom of modern wireless theory that the "spread" of a telephone station, even with single side-band working, must occupy at least the range of musical frequencies from, say, 50 to 5,000 cycles a second. Until full technical details of the methods to be used for transmission and the results of actual tests are disclosed, it is therefore difficult to be other than sceptical.

On the receiving side, however, it is much more likely that real progress has been made. In a typical form of Stenode Radiostat receiver, Dr. G. R.

Robinson, the inventor of the system, has made use of the highly selective properties of the quartz crystal resonator, which up to now has not been used in ordinary broadcast receivers. It is well known that by the use of such a crystal in laboratory experiments, an extraordinary degree of selectivity may be obtained. But the difficulties in using such a crystal in an ordinary receiver are twofold. In the first place a crystal of a certain size is tuned to one frequency only; secondly, there is a certain electrical persistence in such a highly selective circuit which renders it sluggish and unable to follow such rapidly varying signals as are emitted by a broadcasting station.

Dr. Robinson has surmounted the first difficulty by using the super heterodyne principle, so that the frequency of any station that is received is converted first to the natural frequency of the crystal before being applied to it. To prevent the persistence of signals and so eradicate the electrical sluggishness of the circuit, Dr. Robinson uses a form of inaudible quenching signal in somewhat the same manner as is used in the Armstrong or Flewelling super-regenerative circuits. At the demonstration in London recently, the extreme selectivity of the receiver was illustrated by receiving a broadcast transmission on a frame aerial without a trace of interference from another transmitter a few feet away from the set. A photograph of this new receiver appears on page 9 of this issue.

Testing Instruments

THE majority of listeners usually contrive to manage without a voltmeter or ammeter, but those who possess one generally find that a cheap instrument for measuring A and B battery voltages is sufficient for their needs. On the other hand, the serious experimenter finds that accurate measuring instruments are a real necessity, for without them it is impossible to ascertain whether the set is working up to a standard; any falling off in current consumption is instantly reflected in the tail-tale needle. Only meters of the moving-coil type are completely satisfactory for this work. In addition to serving as a check on the set an accurate measuring instrument like a milliammeter is of valuable assistance in tracing faults. It is a good plan to connect a milliammeter in the B battery circuit and an ammeter in the A battery circuit so that an instant check of the current consumption from both batteries is available.

Short-Wave Notes

(Continued from page 32.)

morning at 6.15 talk was heard at R5 by a man. Soon after this a dialogue between the same man and a woman, and music later. No call was heard. The talk appeared to be German. On Thursday at the same time voices were audible at R3. Static was bad. Again on Saturday a speech was being delivered; laughing at times could be heard from the speaker's audience.

On 35.7 metres (about) on Friday morning at 6.15 several "Hullo's" and calling what I took to be 2BF. The talk was in English at R3, very clear, but in some interference spoilt reception. On about 31.5 metres (just clear of Zeesen, who was transmitting at the same time), a weak voice could be heard at 6.15 a.m. on Tuesday.

On Sunday afternoon at 4.45 on about 30.3 metres a man and woman were having a great yarn together. It was duplex. The station tuned in was, I think, the American side of the trans-Atlantic service, where the woman, probably the operator, was talking. All that was readable was "Hullo, London," at intervals. On 24.5 metres (about) at 6 a.m. on Wednesday a foreign voice was heard at R3.

Broadcast Fees in America

Highly Paid Singers

SINGING to-day is one of the most highly-paid professions in America. Even film stars must relinquish pride of place to the present favourites of fortune—operatic and lyric singers. Radio is responsible for the lucrative engagements now offered world-famous artists. In America, as is well known, broadcasting companies earn their money by advertisements. For a long time it has been the custom for departmental stores and big wholesale businesses to pay broadcasting companies for an allotment of 15 minutes on certain nights in the week.

Judiciously advertised, these recital entertainments are the chief enjoyment of thousands of radio listeners. At first simple and unassuming programmes were forthcoming, but now rich progressive companies rival one another in paying stupendous sums per minute to famous singers. The greater reputation enjoyed by the artist the greater audience will tune in.

Sir Harry Lander recently received £3000 for singing three songs—£1000 a song. As a matter of fact, Sir Harry lowered his record by generously giving an encore. He was in Winnipeg at the time and his microphone was linked up with nearly every radio in the United States—there are 12,000,000 of them. He was engaged by a shoe manufacturer.

Al Jolson, the noted jazz singer, went on the air recently to the tune of £150 a minute, the engagement lasting ten minutes, thus netting Jolson the tidy sum of £1500. Mme. Frances Alda, who has just resigned from the Metropolitan Opera Company, is another favourite. Recently she was

paid £600 for a short recital, and she now declares that she has abandoned the operatic stage for the microphone. At a luncheon given in her honour she said that she could not afford to disregard the stupendous money-making power of the radio. In the company of other stars she will give shortly six.

Radio listeners were particularly pleased with Sir Harry Lander because he introduced his own songs. They find in America that professional announcers are apt to talk too long. Singers report that they miss the applause they receive in concert room or the opera house, but they have no long night hours and little travelling. Puccini operas.

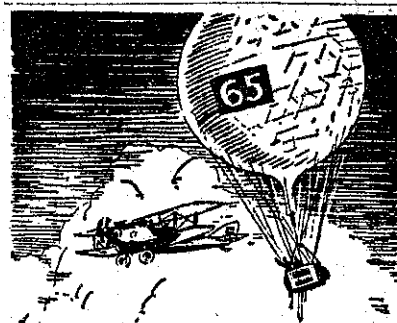
For Sale or Exchange.

See page 32 for column of casual advertisements.

Have you secured your copy of "N.Z. Radio Listener's Guide"?

Dealers and Booksellers 2/6; Post Free 2/9—P.O. Box 1032, Wellington.

Now Available.



PERFORMANCE PROVES THEIR SUPERIORITY.

In the International Balloon races . . . with Byrd at the South Pole . . . on the Wilkins Expedition . . . on the transpacific flights . . . wherever scientists could afford to take no chance, Burgess Batteries are to be found. For performance, past and present, has proved their superiority, in capacity, length of service, power dependability and uniformity.

Stocked by all Good Radio Dealers.

BURGESS "SUPER B" BATTERIES



STEINITE!

ALL-ELECTRIC RADIO combines distance reaching, selectivity and tone-quality, in a way which is unrivalled. Built-in Walnut Console Cabinet. Free demonstrations—Easy Terms.

G. G. MACQUARRIE, LTD.,

Licensed Radio Dealers and Electrical Contractors.

120 WILLIS STREET

Telephone 45-865.

WENR and W9XF, Chicago.

THE following letter has just been received from the Great Lakes Broadcasting Company, Chicago, Illinois, giving particulars of the above stations, the latter being heard every evening by many short-wave listeners in this country.

"Thank you very much for your report and comments on the transmission from our experimental international relay broadcast transmitter W9XF. This transmitter was constructed for the purpose of relaying the programmes of Station WENR to foreign countries, where they may be rebroadcast by foreign broadcasting stations. It is operating on an experimental license granted by the Federal Radio Commission.

"The transmitter is located at the site of the WENR transmitting station, which is three and one-half miles south of Downer's Grove, Illinois, or about twenty-three miles south-west of Chicago. The power output is 5000 watts. The transmitter is operating on a frequency of 6020 kilocycles at the present time. We are authorised to use the frequencies of 11,800 and 20,500. Separate transmitters will be built to operate on these frequencies at a later date.

"W9XF transmits all the programmes of Station WENR, and all announcements include the call letters of both stations. If you are listening on a broadcast receiver, the station you hear is WENR; if you are listening on a special short-wave receiver, the station is, of course, W9XF.

"We will be pleased to have further reports from you on our short-wave transmission, especially as to tone, quality and fading. We would like to know whether fading is of short duration or whether it is rapid enough to produce an audible tone. Enclosed is a copy of the schedule of Station WENR, which is also the schedule of transmissions from W9XF.—E. H. Gager (chief engineer)."

The schedule covers the whole week, opening each day at 10 a.m. and carrying on till 2 a.m. the following morning (Sunday to 1 a.m.), with several intervals. The following is the regular "fare" for Saturday.

10 a.m. to 10.30 a.m. The Sunshine Hour with Paul McCluer, 11.15 a.m. to 11.25 a.m. The Sunshine Hour (continued), 11.25 a.m. to 11.45 a.m.

Are You Satisfied with Your Reception?

If not, Consult—

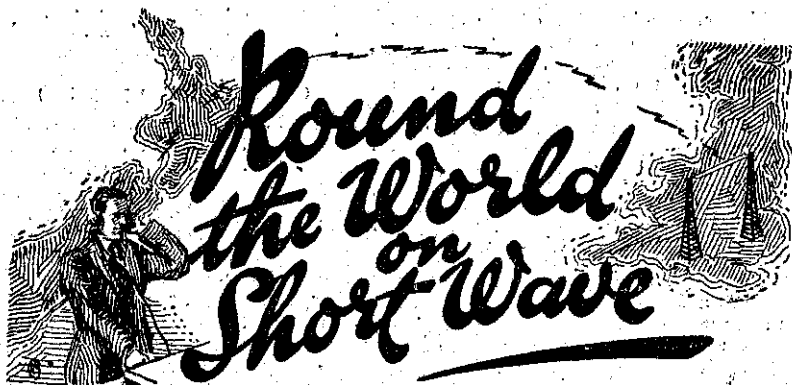
Mack's Radio for expert Advice, Service, Repair.

Mack is now a resident of the Lower Hutt district, and can arrange to give service at any time to suit Customers.

Satisfaction Guaranteed.

MACK'S RADIO

76 Kent Terrace, WELLINGTON.
Phone 20-798.



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

Home Service Feature, Anna J. Peterson, 5 p.m. to 5.30 p.m. The Air Juniors, with Zola and Everett, 7.15 p.m. to 7.30 p.m. Farmer Rusk, with "A.G." Talks, 12 midnight to 2 a.m. DX Air Vaudeville Programme.

The above times are "U.S.A. Central Time." New Zealand summer time is 18 hours ahead of this, therefore 12 midnight there is 6 p.m. here.

W3XAU Testing.

STATION W3XAU, Universal Broadcasting Company, 21 Arch Street, Philadelphia, Pennsylvania, testing on 6020 kilocycles, 49.5 metres, was heard at good strength on Wednesday till they signed off at 1.57 a.m. (6.57 p.m. here) by a local short-wave friend. They stated that it was a new station testing.

S.S. Olympic, G2GN, Heard.

ANOTHER Wellington listener told the writer that he heard at 7 p.m., Sunday, G2GN, "s.s. Olympic," calling Rugby, England. The operator on the Atlantic liner gave his wave-length as 32 metres, and mentioned the time of leaving New York. A schedule, apparently arranged before, was referred to.

XMTR, Vienna.

THIS short-wave station has been heard in Australia on about 60 metres. The following are the particulars of the station, but the correct wave-length is not given.

Call sign, XMTR, owned by broadcast "Ravag" Telefunken. Operator, Eduard Wettendorfer. Address, Wien XVII, Veronikagasse 86, Vienna, Austria.

RA97 On 35 Metres.

SEVERAL listeners have reported hearing the lady announcer who speaks English give the wave-length as 35 metres. The writer has often heard the wave of 70 metres given, but never 35, so apparently transmissions on the lower wave-length are not regular.

Reception during Week ending January 18, 1930.

RA97, Khabarovsk, Siberia, 70 metres, has come in very well every evening except Thursday, when static was very bad. At 10.20 p.m., Saturday, the lady announcer gave the call as RA97 at Khabarovsk, on 70 metres. Numerous news items were read in English, all to do with industrial matters. One was in reference to the

coal mining trouble in Australia; another, announcing a demonstration on February 1, in Berlin by workers in reference to a seven-hour-day and higher wages. When concluding the talk at 10.25 p.m., she said: "It is now just 19 o'clock and 25 minutes, Khabarovsk time (7.25 p.m.)." Some very fine operatic selections were heard later.

W9XF, Chicago, 49.83 metres. This has not been quite so loud during the week. Wednesday was an exception, when they were perfect at R8-9 till 8 p.m.

W2XAF, Schenectady, 31.4 metres. On both Sunday and Saturday it was late before readable volume was reached. R7 was the best at 5 p.m.

PCJ, Eindhoven, Holland, 31.4 metres, was excellent from 6 a.m. on Friday, decreasing to R4 by 7.30 a.m. On Saturday morning they started well about 6 a.m., but went off suddenly in the middle of an announcement at 6.15 a.m. They were not heard afterwards. They were also silent or too weak to hear during the afternoon.

ZEESEN (Konigwusterhausen), Germany, 31.38 metres has been spoilt by static on most mornings. On Tuesday they commenced at 6.10 a.m. with orchestral items at R8-9. Reception was perfect, strength, though weaker, was quite good at 7.30 a.m. A choir was being broadcast on Saturday morning at 6.15 a.m. Reception was spoilt by rapid fading.

710, Nairobi, Kenya Colony, 31 metres. This has been a week of varied reception of 710. R7-8 was the strength on Friday, spoilt by rapid fade and static. Thursday reception was R6. The other mornings volume was very weak.

HS4PJ, Bangkok, Siam, 29.5 metres was tuned in at 6.10 a.m. on Monday, when orchestral records were heard at R7. Several items were transmitted before a call was heard. At 6.20 a.m. chimes, followed by an announcement in Siamese, was heard. Then in broken English, "HS4PJ, Bangkok, 29.5 metres," etc., was given. His talk was difficult to follow. A native song followed at 6.23 a.m., and after 6.30 a.m. some of their weird instrumental music was put on.

VK2ME, Sydney, 28.5 metres, was heard nearly every morning and evening carrying out duplex tests with GBX, England. On Saturday night they were on duplex with either Java or Holland, possibly both. The speaker in Sydney was talking in Dutch.

GBX, England, 27.5 metres (about). Duplex with 2ME, as above. Average strength R7-8.

KZRM, Radio, Manila, 26 metres, continues to be received at good strength after 10 p.m. Thursday and Friday were the best days during the week, volume being R9. A morse station has been troublesome recently at times.

G5SW, England, 25.52 metres, is a little stronger now at 7 a.m., but rapid fading spoils reception. An announcement has been made each morning in reference to 5SW transmitting the opening of the Naval Conference at 11 a.m., January 21.

KDKA, Pittsburgh, 25.4 metres, was spoilt on Sunday and Saturday by a strong gurgling noise. On Saturday afternoon after 5 p.m. something was said about PCJ, Eindhoven, Holland, but readability was spoilt by noise referred to.

W6XN, California, 23.35 metres, on Sunday was fair strength for a time during the afternoon, but was too gushy to be readable.

W6XAD, Schenectady, 19.5 metres, was back to something like its old volume on Saturday, being R7-8 at its best at 4.30 p.m. This station and 2XAF were simultaneously transmitting the same programme of dance music from the Hotel St. Regis.

PLE, 15.74 metres, and PMB, 14.5 metres, both of Java, were heard several times on duplex with PCK, Holland, 16.3 metres. On Saturday both PLE and PCK were broadcasting records prior to going over to duplex with 2ME, Sydney.

Monte Grande, Chile, 15.02 metres.—At 6.20 a.m., Thursday, this station was heard calling: "Hullo, Paris." Signals were very clear at R6. The other station could be heard faintly through Monte Grande, but could not be located direct.

Unidentified Stations:

A STRANGER has been heard on about 42 metres. Wednesday (Concluded on page 31.)

FOR SALE OR EXCHANGE

The rate for small advertisements under this heading is 1/6 cash for 20 words, and twopence for every other word thereafter.

WEBSTER Pickup and Tone Arm, almost new, latest model, condition guaranteed, £4. "Pickup," Box 1032, Wellington.

FERRANTI output Transformer, £1. Output 25 to 1 out of 6. Magnavox Speaker, new, 35/-. "Radio Record," C/o "Radio Record."

METRODYNE ELECTRIC challenges any Set for distance, selectivity, quality, value. Nine valves, five condensers. Importers, Royds-Howard Co., 553, Colombo Street, Christchurch.

LOWEST priced Radio Gramophone, also Temple Exponential and Magnetic Speakers. Ask your dealer or call, Royds-Howard Co., 553 Colombo Street, Christchurch.

STALLOY-TRANSFORMER. — Strips 30 x 1 inches, 2/- doz. Other widths proportional. Also supplied cut, punched. Special quantity quotations. Johns, Ltd., P.O. Box 471, Auckland.

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