

THE NEW ZEALAND Radio Record

PUBLISHED WEEKLY.

Printed Tuesdays to permit of effective distribution before the week-end, with full copyrighted programmes for the succeeding week. Nominal date of publication Friday.

LITERARY MATTER.

All literary matter and contributions must be addressed to the Editor. If the return of M.S. is desired, enclose 1d. stamp.

SUBSCRIPTION RATES.

Rate of Subscription: Single copies, 3d.; Annual Subscription (if booked), 12/6, post free; normal rate, cash in advance, 10/-, post free.

ADVERTISING RATES.

Schedule of Advertising Rates available from all advertising agents in New Zealand, or write: "Advertising Manager," Box 1032, Wellington.

Advertisements requiring setting should be in hand not later than Friday of each week to ensure publication in succeeding issue. Stereos and blocks, providing space has been arranged beforehand, can be accepted up to midnight Monday. Contract advertisements not changed will be repeated.

No responsibility is accepted for blocks, stereos, etc., remaining unclaimed after last use, beyond a period of three months.

A. J. HEIGHWAY,
Managing Editor,
"The N.Z. Radio Record,"

P.O. Box 1032.
Dominion Buildings, Mercer Street, Wellington.

WELLINGTON, JANUARY 13, 1928.

BROADCASTING AND DAYLIGHT SAVING.

In a special front page article, we set forth some of the points in which daylight saving has affected broadcasting, and invite our readers to express their views upon the position. Country listeners are particularly affected, although city enthusiasts seeking overseas reception are also concerned. Our special sympathy, however, is commanded, not by the city enthusiast seeking "DX," who finds himself inconvenienced. He is in the position of a special enthusiast who has a service at command, but for some special reason seeks another source of entertainment. Any complaint from this section against daylight saving would not in itself constitute a legitimate argument against daylight saving provided that measure was otherwise rendering an outstanding social service. But the complaint of the genuine backblock listener, distantly situated from the New Zealand stations, who finds that through the extra hour of daylight he is practically completely cut off from the broadcasting service is in quite a different category. Embodied in our special article is a letter from a southern listener, stating that in his district alone twenty listeners with sets aggregating an investment of £1000, are completely cut off from broadcasting for the four summer months. His and their case excites sympathy, because anyone familiar with rural conditions realises that under their circumstances broadcasting is a necessity, not an optional luxury. We invite the views of our readers on their actual experiences with summertime and radio. Is it desirable that the experiment should be repeated next year? Does the good outweigh the harm? Or can the good of more daylight for city folk be secured by an adjustment of business hours without the disruption of country time? We can now talk on fact, not theory. What are the facts?

CRYSTAL RECEPTION

AN AUSTRALIAN'S FEAT.

A correspondent of the Melbourne "Listener-In" writes: "I spent a fortnight's holiday at Port Welshpool, South Gippsland (Victoria), a small fishing village situated on Corner Inlet, near Wilson's Promontory. Port Welshpool is 128 miles from Melbourne by rail. The following is a summary of the work done with the despised crystal—Aerial: Standard, inverted L, supported on 4ft. masts, 60ft. apart. Earth: 8ft. x 1in. galvanised iron pipe, driven in flush with the ground. The circuit was of the single coil condenser tuned variety. A coil of 30 turns of 20 S.W.G., D.C.C., was used, supported on 4 celluloid strips 1/2in. wide. Turns spaced a distance equal to 1 1/2 times diam. of wire. Diam. of coil was 4 1/2in. Condenser: Sq. law, .0005 mfd., without vernier. Detector: Cat whisker, No. 36 S.W.G. Nicrome wire. Crystal: L.L.5, made by the Brownie Wireless Co., London. Phones: Resistance 2400 ohms. Stations logged: 3LO, 3AR, 2FC, 2BL, 2GB, 4QG, 5CL. The only time we could get Brisbane was during cold weather, but on such a night reception was good, every word being understood. During an hour on a cold night all the above stations were logged many times, and this offsets the theory that we were helped by a neighbouring valve receiver, the nearest set being situated in a house close on a quarter of a mile away. All stations were subject to fading except 3AR. At times 3LO and 2FC were audible 3ft. from the phones. The reception of 2GB was the most difficult of all. To get this station we increased the insulation of the aerial, and waited for cold weather. A buzzer was used frequently. All components were well spaced, the coil being placed on two porcelain insulators, 1ft. 6in. from the panel supporting condenser and detector. Set wired with No. 16 S.W.G. tinned copper, bare wire. How do these results compare with others you have on record?"

The editor of the "Listener-In" adds: The results are excellent, probably a record. Your position evidently helped reception. Such a performance would

be an impossibility in and around the suburbs, as interference from the local transmission would occur."

The distance spanned to bring in 4QG, Brisbane, was 890 miles over land all the way. 5CL, Adelaide was 525 miles away, and reception was also over land throughout. Sydney was 425 miles distant.

A CURIOUS PHENOMENON

"Nature" of October 15, 1927, says the experiments being made with short radio waves all over the world are giving most astonishing results. In the October number of "Experimental Wireless," the Radio Research Board refers to results obtained by E. Quack, published in two German technical papers. Oscillographic records have been obtained at Gellow, near Berlin, of signals sent from Rio de Janeiro. Each signal is accompanied by an "echo" signal, caused, most probably, by waves which have travelled round the earth in the opposite direction to the direct signal. This is most curious, because the beam transmitter is not only directional, but also works with a reflector. Further experiments carried out recently show that several signals are received at definite equal intervals after the first signal. As the interval of time between the first direct signal and these additional signals is always a multiple of 0.197 of a second, it looks as if the waves, after causing the first signal, travelled completely round the world several times, recording signals as they passed the receiver. For waves lying between 14 and 34 metres, double signals have been observed. It has also been noticed that double signals occur most commonly when the great circle on which the receiver and transmitter lie is in twilight. On the other hand, the "echo" signals caused by waves travelling round the world in the opposite direction to the direct signal are often noticed in the daytime. The attenuation of the signals after encircling the earth several times is not great, and it is concluded that many more encirclings occur before the waves subside. In practical work, methods have to be devised to eliminate the disturbances caused by these multiple signals, but their systematic study should be a great help in elucidating the phenomena of short-wave propagation.

Maori Pageant to be Featured by 2YA

Arrangements are now in train for the Radio Maori Pageant, which is to be the feature at 2YA on Monday, February 6, the anniversary of the signing of the Treaty of Waitangi.

A large party of Maori artists, well qualified to present the historical and musical side of Native life in New Zealand, will visit Wellington. They will give two performances, the first for the benefit of the people of New Zealand, and the second, on the subsequent evening at a later hour (after the usual evening session) for the entertainment of listeners in the New Zealand Dependencies and other places overseas.

AUSTRALIAN ROYAL-TIES

GOVERNMENT AND AMALGAMATED WIRELESS

PARLIAMENT RATIFIES AGREEMENT.

News is to hand from Australia that the Bill to ratify the wireless agreement between the Commonwealth Government and Amalgamated Wireless, Ltd., has passed both Houses of Parliament, and is now an historical legal fact. It will be interesting to examine it in its relation to the general public. The general public are interested in any activity or policy of Amalgamated Wireless, because the people through the Commonwealth Government have invested £500,000 in the company. Consequently the company is in many respects filling the place of a Government Department carrying on a public utility service. Most public utility services of course are conducted as a Government monopoly. The activities of the Wireless Company, however, are in competition with other companies.

What Brought About the Agreement.

People will ask, What is the origin of the agreement? In order to answer that question we must turn our thoughts back to the Australian Royal Commission on Wireless which after months of investigation made certain recommendations to the Australian Government. Included in its report and recommendations were many references to Amalgamated Wireless, Ltd.

The majority of those references were not complimentary—indeed, some were very complimentary. The methods and policy of the company in certain respects were considered unsatisfactory and certain changes were suggested. It was suggested that the payments made to the company or claimed by the company in respect to broadcasting were too high and should be reduced.

Royalties Charged.

The royalties payable indirectly by listeners to the company amount to 5s. per annum. The payment is made through the medium of the licence of 27s. 6d., of which amount 5s. is paid by the broadcasting company to Amalgamated Wireless, Ltd. The Commission recommended a reduction of this amount to 2s.

The company also demanded royalty payments from wireless traders who sold valve sets. These payments were to be 12s. 6d. or 17s. 6d. per valve socket, according to the country of manufacture—12s. 6d. for British or 17s. 6d. for other countries. Many traders objected to the payments and the Commission recommended a payment of 5s. per valve socket.

Company's Toll Reduced.

The Government apparently went further into the matter than the Commission, and concluded an agreement with the company whereby the traders were relieved of all payments, and the listeners pay an amount of 3s. per year as portion of their licence fee. The Government thereby severely cut down the company's toll taken from broadcasting. But the total amount will be pretty considerable, nevertheless—over £37,500 for the present year.

One effect of this agreement should be a reduction in the price of valve sets—to an amount approximating to the amount of royalty previously claimed by the wireless company. That is about £5 per four or five valve set. It will be interesting to see if the listener gets the benefit.

REMOVAL NOTICE

We desire to advise all dealers and subscribers interested that we have now removed our business premises to the new "Dominion" Buildings, Mercer Street, Wellington. Our office is situated on the third floor. The telephone number remains as before, 45-366, and will be found for the time being under the title of "The N.Z. Dairy Produce Exporter Newspaper Co."

It has been found that a "C" (or grid-bias) battery will give your "B" battery a longer life by 75 per cent. As there is no drainage whatever on a "C" battery, this will last as long as if you put it on one side. "C" batteries only cost about 8s. 6d. The plus lead should be taken to A-minus, and C-minus should be connected to F-minus of each transformer.

2NM, owned by Mr. Marcuse, of London, is testing on 28 and 32 metres on Tuesdays, Thursdays and Saturdays from 6.0 to 7.0 a.m., and from 9.30 to 10.30 p.m., also on Sundays from 6.0 to 7.0 a.m. and 6.0 to 7.0 p.m. G.M.T. Short-wave receivers should be able to pick up these transmissions with ease.

ONCE MORE

5SW ON THE AIR

HEARD IN WELLINGTON.

A few broadcast listeners in Wellington who were enjoying 2FC, Sydney shortly before 1 a.m. on Thursday of last week, were agreeably surprised when the announcer stated that he had just received a telephone message from Amalgamated Wireless Ltd., informing him that 5SW, England, would be available for re-broadcasting within a few minutes.

Shortly after 1 a.m. the English station was switched on by 2FC, and was loudly received in Wellington. The "London Radio Orchestra" played fox trots and other dance items with rich tone, and this was loud enough to enable one household to enjoy a dance to the accompaniment of music from the heart of the Empire. Vocal items followed and they came through quite clearly and with good strength. Neither static nor variation in volume was conspicuous enough to spoil reception.

One Wellington listener changed from his broadcast receiver to his short-wave equipment and brought in 5SW, England, with crystal clearness, but the volume was decidedly poor. Added to this, static, which was very moderate on the ordinary broadcast wave-length, raged violently on the wave-length of 5SW. But the outstanding feature of the English station was its clearness and steadiness. The Australians appeared to be little troubled by static in receiving 5SW, or else it would have been reproduced in the relay from 2FC, Sydney.

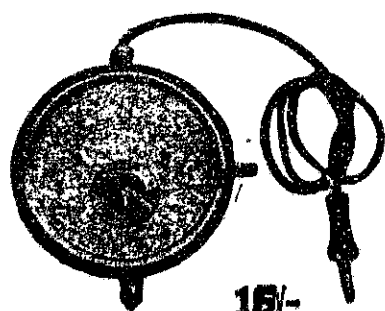
OVER 40,000

The total number of licenses now issued by the Post Office to date exceeds 40,000, but it will not be known for a few days yet whether the figure mentioned was actually reached by the end of last year. Registrations since the opening of the New Year have been continuing at a fair rate, and these have carried the total beyond the 40,000, but a few days time is necessary for registrations in different districts to reach the central office and permit of the compilation of the figures to December 31.

The Seattle, Washington, U.S.A., fire department has been licensed to operate a short wave radio station, called KVI, on 127.6 metres. Other new stations include KWW, of the Pacific Air Transport Company at Bakersfield, Cal., 66.48 metres, and WSV, Electrical Equipment Company, Miami, Fla., 124.9 metres.

According to the New York "Radio News" the average 500-watt broadcast station in the United States costs from £20,000 per year to run if it is operated on any decent basis whereby the public gets fair entertainment.

For average reception of moderately strong signals the grid-leak should vary between 1 and 2 megohms. For weak signals the grid-leak should range from 5 to 7 megohms. If you have an adjustable grid-leak, by tightening it down you reduce its resistance. If the signals are weak loosen the adjustable screw of the grid-leak.



U.S.A. TO N.Z.

A SPECIAL BROADCAST

CONCERT FROM KFWM.

The "Radio Record" has received advice from a New Zealand long-distance fan that there is reason to believe a special programme for New Zealand listeners will be broadcast by KFWM, the Oakland Educational Society's station, Oakland, California, about next March or April.

This station operates on a wavelength of 286.1 metres (1270 kilocycles), with a power of 1000 watts. KFWM has already been heard by a number of New Zealanders. Favoured with an all-dark route by arranging a concert for the early hours of the morning in California, KFWM should have no difficulty in being widely heard in New Zealand.

TO SEE BY RADIO

IMPORTANT PLANS OUTLINED

POSITION IN BRITAIN.

There were one or two really interesting displays at the recent Exhibition of Scientific Apparatus at the Leeds Town Hall, while the activities of Mr. J. L. Baird in demonstrating his television and noctovision apparatus created great interest in all quarters.

One point which has aroused the hopes of many people in Great Britain, and especially those who are really interested in television from the point of view of science and not as a novelty, is that Mr. Baird is shortly expecting to be granted by the Post Office powers equal to those at present enjoyed by the British Broadcasting Corporation. When this glad state of affairs comes about the Baird Television Development Company will increase the power of their present station in London and erect television broadcasting stations in other towns throughout the country.

According to Mr. Baird in the first instance television receivers will be marketed as scientific novelties and will be built on similar lines to the wireless receivers in the very early days of broadcasting. There will no doubt be some imperfections in these early models, but novelty, as ever, will outweigh these small disadvantages and many members of both trade and public will invest in a television. Later, when the science develops, the public will desire pure entertainment and quality—or should one say texture?—of reproduction and, being further developed, television will be able to give views of theatrical shows, horse races, "big fights," and similar public events.

Finally, after the meeting of the British Association had been brought to an end it was decided to form a television society for the furtherance of the new science.

The Photo-Electric Cell.

It is the photo-electric cell which has accomplished a miracle in rendering radio-vision possible. Even the latest of text books give no definition of this invention, which shortly will become famous through its relation to television. The photo-electric cell is a vacuum tube which is extremely sensitive to any changes of intensity of light falling upon it, due to the fact that its internal resistance varies with the intensity of the light reaching it.

The property of the cell has been utilised in many ways, such as in transmitting photographs, making talking motion pictures, improvement in the manufacture of gramophone records, and in accurately matching colours.

Except for a small area, the inside of the bulb glistens with metallic potassium. Depending on the amount of light striking it, this metal permits a varying amount of current to pass through the cell.

"Prize-fighting has given me money for the cultural things of life."—Gerie Tunney. From the ringside photographs it looks as though it also enabled him to spare something for Dempsey.

"The man who is always counting his calories and sniffing out his vitamins is lost."—Sir James Crichton Browne. This should be tidings of great joy for bad arithmeticians and victims of hay-fever.

In the carborundum detector we have a crystal held against a steel block under several pounds of pressure. In this detector nothing is likely to be burnt out, because this crystal can be subjected to a tremendous amount of heat without changing its efficiency.

Buy BRITISH Goods!

Agent for:

FERRANTI TRANSFORMERS
FORMO COMPONENTS.
DUBILIER GOODS.
T.C.C. CONDENSERS.

A. E. STRANGE

404 Worcester Street,
CHRISTCHURCH.
Telephone 3767.