

AN eight-hundred-millionth of a watt, a power so faint as to be beyond the grasp of the mind, is sufficient energy to operate an ordinary receiving radio.

WGY, at Schenectady, and WEA, at Belmore, Long Island, are the two most powerful broadcasting stations in the United States. These stations operate at 50 kilowatts regularly.

A CORRESPONDENT has asked for dinner music. Does he know that on tuning in the two big Sydney stations at 8.30 a.m. with a sufficiently powerful receiver, (a six-valve receiver should be sufficient) breakfast music may be obtained.

IN commenting on the steps taken by the Department to combat interference a Taranaki paper adds: It is hoped that the Department's activities will not be confined to Wellington, but it must be admitted that the New Plymouth Borough Electric Light Department has been very keen and painstaking in tracking down and remedying similar trouble in New Plymouth.

WITH reference to the service range of broadcasting stations, Mr. J. Hogan, technical adviser to the Federal Radio Commission, reports:—A 50-watt station can provide very good service for two miles, good service for ten miles and poor service for 100

Radio Round the World

miles. A 500-watt station can provide very good service for six miles, good service for thirty miles and indifferent service for 300 miles. A 5000-watt station can provide very good service for twenty miles, good service for 100 miles and indifferent service for 1000 miles. A 50,000-watt station can provide very good service for sixty miles, good service for 300 miles, and indifferent service to the entire country (U.S.A.).

MESSAGES have been received from Canada, U.S.A., Mexico, several of the South American republics, Japan, Java, India, South Africa, various European countries, and the Pacific Islands, to report the reception of the Eucharistic Congress. Broadcasting the congress involved an enormous amount of work. Well over 2000 miles of land-line was used, quite apart from the rebroadcasting that was done direct by air. Every State in Australia was linked up, while the overseas countries had the opportunity of relaying on short waves. In some instances at night time, relays were also carried out by air from the long wavelengths. Another phase, which called for a considerable amount of labour, was the actual wiring of St. Mary's Cathedral and the show ground, so that the best results from an acoustic point of view could be secured. Never before had such a battery of microphones been brought into use, and some of the management and engineering staff spent days in co-operation with the authorities of St. Mary's Cathedral, testing out the capacity of the microphones to give the best results when broadcasting massed choral music. That this work was not in vain, has been demonstrated by constant references in the correspondence to the success of the broadcasting of the massed music.

IN 1907 took place the first broadcast of a concert in English waters. Captain Q. C. A. Craufurd, R.N., who was responsible, writes:—"I had several signalmen helping me," says Captain Craufurd, "and we chose the most musical of them to sing the first song, 'God Save the King.' This was the first song ever broadcast. We followed this up with 'Rule, Britannia,' 'Trafalgar Day,' 'On the Mississippi Shore,' 'There is a Tavern in Our Town,' 'Three Blind Mice,' and others. The Admiralty did not want the general public to know of the invention. I was not allowed to say a word about it. They thought it could be adapted with great profit for use in submarines." The range of the broadcast was about three miles.

THERE are 884 short-wave channels available in the fixed station band from 6000 to 23,000 kilocycles (50 to 13 metres) accepting the theory of a one-tenth of 1 per cent. separation between channels. The United States already is using 188 of the 884 channels, 81 being employed by the various Government services.

COMMANDER BYRD'S South Polar expedition will afford another unique opportunity to the short-wave receivers to prove the general utility of radio transmission and reception. The American station KDKA will endeavour to keep in regular touch with the Antarctic flyers, who should find

no difficulty in maintaining continuous touch with New Zealand operators. According to latest advices from Washington, two young Government radio engineers—M. P. Hanson and L. V. Berkner—will accompany Commander E. Byrd on his expedition to the South Pole. They were selected because of their demonstrated qualifications as specialists in aircraft radio; one being identified with the Bellevue Naval Research Laboratory, and the other connected with the radio laboratory of the bureau of standards. Researches in aircraft radio are in progress at both of these Government laboratories.

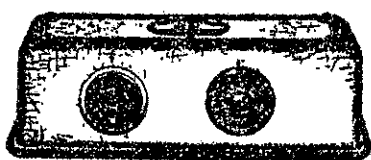
THE signals from the Southern Cross can cover a greater area than most people imagine. A report has been received from Bloemfontein half

(South Africa) that during the trans-Pacific flight signals were received there quite distinctly.

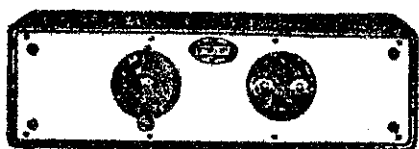
THE B.B.C. having launched the project to broadcast great plays intend to follow up with other plays of note. "Julius Caesar," "Le Bourgeois Gentilhomme" (Moliere), two Ibsen plays, "Brand" and "John Gabriel Borkman," Tchekov's "Cherry Orchard," and perhaps his "Uncle Vanya," Maeterlinck's "Monna Vanna," Khalidasa's "Sakunthala" and Calderon's "Life's a Dream." It is hoped that Bernard Shaw will permit at least one of his plays to be broadcast, and if choice is given it may be "The Doctor's Dilemma" or "Candida." These plays will be performed in the studio at the rate of one a fortnight. They will be adapted and shortened and it is expected each will last about an hour and a half.

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