

## ESTABLISHMENT OF BEAM RADIO SERVICE BETWEEN GREAT BRITAIN AND CANADA.

The British Administration has notified the opening on the 25th October, 1926, of a radio telegraph service operating on the beam system between Great Britain and Canada. Telegrams by this route bear the instruction "Empiradio."

## RADIO-TELEPHONE BROADCASTING.

In conformity with the agreement between the Department and the Radio Broadcasting Company of New Zealand, Ltd., modern broadcasting stations have been opened at Auckland and Christchurch. The building for the Wellington station is now in course of erection. It is of interest that the apparatus to be installed at Wellington is claimed to be greater in power-output than any station in operation in the Empire, with the exception of the Daventry station in England.

While it is hardly to be expected that the talent available for broadcasting can be as varied or of as uniformly high quality as that obtainable in countries offering a wider selection of artistic talent, it is the intention of the Department to insist, as far as possible, that the programmes broadcast shall be of a high standard, not only in musical and artistic items, but also in the lectures and instructional talks. It is the desire of the Department to afford this modern adjunct of civilization every facility to achieve the same wide popularity that it enjoys in other countries.

## ELIMINATION OF INTERFERENCE TO BROADCAST LISTENERS.

*Radiating Receivers.*—In its campaign against interference to broadcasting services the Department is not overlooking that most annoying element, the oscillating, or "howling," valve in radio receivers. Notwithstanding the publicity given to the directions for correct manipulation of radio receivers, it is evident that many listeners, probably in most cases by reason of their zeal to receive signals from far-distant or low-powered stations, are unmindful of these directions, which are given in their own interests. In consequence there is little abatement of the nuisance. The efforts of the Department to combat this form of interference include the examination of the various types of receiving-sets before their use is authorized, with a view to preventing the bringing into use of receivers which, despite reasonably skilled manipulation are likely to cause interfering radiation. A diagram of the circuit, or the trade name of the receiver, proposed to be used is required to be furnished by each applicant for a receiving-station license. From the information thus obtained many undesirable sets have been detected and their use prohibited. With the continually increasing variety of receivers, the work of investigating the interfering properties of the various types has attained some magnitude, involving as it does in many cases tests of the instruments under actual working-conditions. With a view to locating offending apparatus the Department is now providing direction-finders for the use of its Radio Inspectors. In addition to detecting offending apparatus these officers are required to advise radio listeners in the correct manipulation of their receivers. The direction-finders will be used also for detecting unlicensed stations.

*Amendment of Rules regarding Ship Transmissions.*—A further factor in the elimination of morse interference to broadcast-listeners was the amendment in September, 1926, of the rules governing radio-telegraph transmission by ships in the vicinity of the New Zealand coast. Formerly ships were not permitted to transmit on a wave-length of 450 metres when they came within a radius of twenty-five miles from the nearest commercial station. Under the amended rules, ship stations are forbidden to use the 450-metre wave-length during the evening broadcasting sessions when they come within a 400-mile radius of a New Zealand coast station. During the rest of the day transmissions on a 450 metre wave-length are permitted except when ships are within a radius of 100 miles of a coast station.

*Installation of Valve Transmitters at Commercial Coast Stations.*—The combined continuous-wave and interrupted-continuous-wave valve transmitter, to which reference was made in last year's report, has since been brought into use at Radio-Auckland. The low-power valve transmitting-set which was temporarily in use at that station has been transferred to Radio-Awarua for use during broadcasting hours. In consequence of these and similar installations at other stations, interference to broadcasting caused by morse transmissions from New Zealand coast stations has been almost entirely eliminated.

*Inductive Interference from Power Lines and Electrical Apparatus.*—It is pleasing to record that ready assistance is being rendered by some electric light and power supply authorities in the matter of minimizing interference to radio reception caused by induction from faulty power lines and from electrical apparatus. With a view to encouraging Power Boards to take up the work of locating such sources of interference, licenses are being issued free of charge to power authorities in respect of radio apparatus used exclusively for this purpose. In view of the obvious benefits to be derived by Power Boards from the early detection of incipient faults in their lines or apparatus, it is anticipated that power authorities will adopt a systematic inspection of their plant.

## PRIVATE RADIO-STATIONS.

The number of radio receiving licenses in force at the 31st March, 1927, was 18,162, as against 3,588 for the preceding year. This remarkable increase may be ascribed to the opening of regular broadcasting stations at Auckland and Christchurch.