69 F.—11.

The Commonwealth Government has decided to build its own stations upon a system stated to be that of their own wireless expert, Mr. Balsillie. The power of these stations will not exceed, say, 5 kw. to 7 kw. The first of these stations, erected in the Domain at Melbourne, was seen. The mast is made up of Oregon pine beams, 15 in. by 3 in., bolted to form a mast 185 ft. high and 21 in. square throughout its length. The foot is imbedded in concrete. The aerial of umbrella form consists of a few wires extended outwards and anchored at about ground-level some distance from the base of the mast. The building is about 25 ft. by 30 ft., and is of two rooms. Permission was given to see the operating-room, which contained nothing unusual. The inner room contains the apparatus, which is kept from the observation of outsiders. Recently it was reported that the Marconi Company had proceeded in the Courts for permission to inspect the whole of this station. Judgment was given in their favour, with the proviso that secrecy was to be maintained as to the station. It was stated the permission was not accepted on these conditions. The working of this station was said to be very satisfactory.

A similar station was seen in course of erection at Hobart, which is now finished and giving

satisfactory results. The erection of several other stations at different points was to follow.

The officers of the wireless department of the British Post Office were spoken with, but there was nothing of any special significance elicited. Their principal stations are at Caister, North Foreland, Bolt Head, Seaforth, and Cookhaven. These are all of 3 kw., except Caister, which is $1\frac{1}{2}$ kw. They have stations at Niton, Lizard, Malin Head, and Rosslare using 10 in. coils, but the power of these is to be increased. Niton and Malin Head are being made 3 kw. and 5 kw. respectively. The Lizard station is to be removed to Land's End and 5 kw. installed. The Rosslare station will be removed to Fishguard, with 3 kw. installed, and a new station of 10 kw. is to be opened at Valentia, on the west coast of Ireland. The Marconi system is used. Masts are mostly 150 ft. high. Aerials are of different forms, such as cage type, umbrella, L form, vertical two wires, and ordinary four wires—that is, a central mast with four wires radiating outwards to four smaller and lower masts. Licenses are granted for experimental purposes for operating during certain hours; these impose conditions as to tuning and wave-length. The officers expressed themselves as interested in the high-power wireless undertakings in this Dominion.

While in London an effort was made to arrive at some conclusion as to the situation regarding the patents in respect to wireless installations in New Zealand. Nothing definite, however, could be arrived at. The Marconi Company claimed that the Parker judgment delivered in connection with the action against the Amalgamated Radiotelegraphic Company established that all companies engaged in the supply and operation of wireless telegraphic apparatus and installations were infringing the Marconi patents. So far as New Zealand is concerned, there would appear to be only two principal companies involved—viz., the Marconi Company and the Australasian Wireless Company (Limited)—supplying and operating the Telefunken system. The parent company of the Telefunken system in Berlin claimed that their system in no way infringed the patents of the Marconi Company, and actions of each company against the other had been begun but had not come to a hearing. Various opinions were expressed by persons acquainted with wireless matters. No dependence, however, can be placed on mere opinion in connection with such a matter, and until a Court has pronounced judgment the question of infringement must remain in its present indefinite condition.

The Lodge patents, of which an extension of certain claims had been granted by the Court for a period of seven years, have been purchased by the Marconi Company. One of the conditions of the extension was that licenses were to be granted on reasonable terms to persons wishing to use the system. Application was made to the Marconi Company by the British Insulated and Helsby Company (Limited) for a license, but difference arose as to what were reasonable terms. The result was that the question was referred to arbitration, and the hearing was taking place

during December and January, but was not open to the public.

In conclusion, it is desired to say that everywhere the utmost kindness and courtesy were extended to me, and every facility was afforded me as the representative of the Department to obtain information and insight into the methods of working and other aspects of the matters that were being inquired into. So generally was this the case that it would be invidious to single out any particular persons, firm, company, or Administration for special notice in this connection. One exception should be made to the above by stating that Mr. Llewellyn Preece, of the firm of Messrs. Preece, Cardew, and Snell, and Consulting Engineer in London for the Department, was untiring in his efforts to facilitate in every way my endeavour to get into touch with various matters; and on many occasions he made all arrangements and accompanied me to places where demonstrations of special apparatus or appliances were being given. His special knowledge, which enabled him to determine where matters of interest were to be found and how to get into touch with them, was of much assistance.

T. Buckley, Chief Electrician.

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