

SWITCHBOARD, GONZALES HILL

local conditions and anticipation of future needs have been necessary in bringing the service to its present efficient state.

The burden of work entailed by these considerations fell heavily upon the shoulders of Mr. Doutre as the first superintendent of wireless in the Dominion, and, in face of all the difficulties attending the establishment of the service, this gentleman proved himself a capable and progressive official. A couple of years ago Mr. C. P. Edwards, who as a member of Signor Marconi's private staff, had been identified with the crection of stations in the east, was appointed to the position which Mr. Doutre had temporarily held. In securing Mr. Edwards' services the government made an acquisition of a decidedly profitable character. He is reckoned among the foremost of the world's wireless experts, having been closely associated with Marconi almost from the inception of practical communication in the late nineties. Under his supervision the Canadian stations have been brought to a pitch of excellence exceeded by those of no other country, and the government's policy of building and operating its own stations has been carried on with complete success.

As an illustration of the strides which the service has made since Mr. Edwards' appointment a brief description of the conduct of the British Columbia stations, which are equal to any in the Dominion, will serve. The first apparatus installed in these stations, as the reader has noted, was that known as the Shoemaker system. Single sets, having a capacity of one kilowatt and an average range of 100 miles, were then utilised and proved more than capable of meeting existing conditions. The amicable settlement of the differences existing be-



INSTRUMENT ROOM, GONZALES HILL STATION, VICTORIA, SHOWING VALVE-TUNER IN LEFT-HAND SIDE OF PICTURE

tween the Ottawa authorities and the Marconi company, however, made the use of the latter's equipment advisable, as the experience of the government experts on the Atlantic coast had convinced them of its superiority over rival devices. Under the supervision of Mr. Edwards the Pacific coast stations have now been fitted with the very latest type of Marconi plants, duplicated in each station to insure continuity of service in case of a temporary breakdown, and having a variable range of 250 to 350 miles under even the most adverse atmospheric and weather conditions. Experienced operators have been secured and a service of 17 hours out of each 24 has been maintained without interruption, while arrangements are almost completed for the employment of a third operator at every station which will allow of continual operation.

To familiarize the reader of this article with the equipment of the stations a brief description of the headquarers at Victoria, of which the other plants are more or less duplicates, should prove interesting. Sheltered from the violence of the winds that occasionally howl over the crest of Gonzales Hill is a neat, one-storey frame building in which the Marconi instruments and generating plant are housed. In one of the three rooms there is a six h.p. gasoline engine, mounted on a heavy concrete bed, and by means of a dynamo the power furnished by this engine develops a current of 110 volts. In the central room there is a condensing plant which steps this current up to 50,000 volts; and here is also located Marconi's "synchronous rotary spark-gap," the latest word in apparatus designed to produce the oscillatory discharge of electric