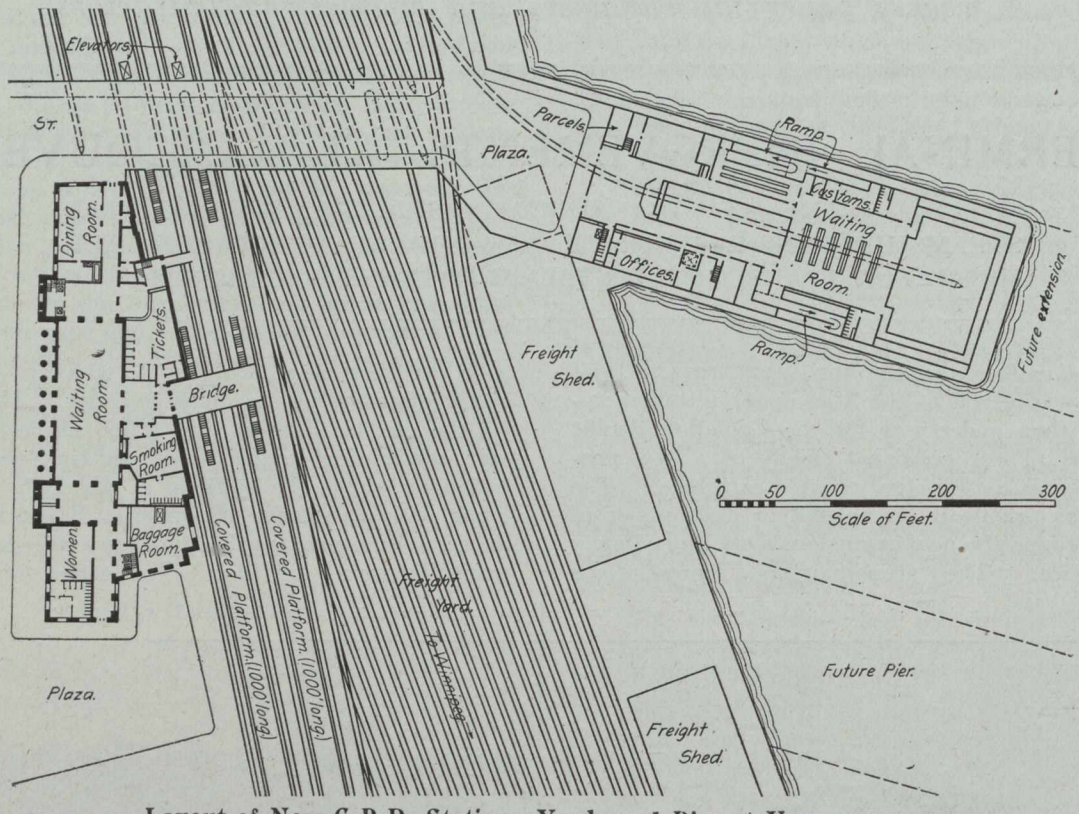
pier extends out to the harbor line to provide accommodation for the larger liners.

The new pier is 490 feet long and 200 feet wide. The sub-structure is built of creosoted timber to withstand the attacks of the toredo, which is very active in the Burrard Inlet. At high tide the depth of water prior to construction was over 60 feet at the outer end of the pier. This depth was materially reduced by fill, and about 3,000 piles, ranging in length from 80 to 110 feet, were then driven. Large logs are chained together and used as fenders to provide protection and distribute undue shocks occasioned by the striking of a vessel in docking. The superstructure of the pier is also of timber construction. As in the case of the railway station, the 2-story type is used, and baggage and express facilities are provided with electrically operated lifts on each side of the pier.

The firm of Westinghouse, Church, Kerr & Company, Montreal and New York, designed and constructed the improvement under the direction of the engineering department of the Canadian Pacific Railway western lines, of which Mr. J. G. G. Sullivan is chief engineer. The architects for the passenger station were Messrs. Barrott, Blackader and Webster, of Montreal.



Layout of New C.P.R. Station, Yards and Pier at Vancouver.

Detail of Passenger Train Shed Arrangement.

RAILWAY BUILDING IN AUSTRALIA.

A transcontinental railway extending from Kalgoorlie in Western Australia to Port Augusta in South Australia, about 1,063 miles in length, is under construction, and practically one-third has been completed. When in operation, it will connect the present railways of the west with those of South Australia, Victoria, Queensland and New South Wales, to form a route 2,500 miles in length. It was started at Port Augusta in 1912, and will cost in the neighborhood of $24,000,000. It is of 4-ft. 8½-in. gauge. This gauge was also used on the railways of New South Wales, but those of Victoria, Queensland, Western Australia and part of those of South Australia are of different gauges, *viz.*, 5 ft. 3 ins. and 3 ft. 6 ins. respectively. The commonwealth of Australia has under consideration the adoption of a standard gauge and may require its railways to do so in the near future. The cost of conversion of the existing roads from the present to standard gauge is estimated at $200,000,000.

Within the next few years it is probable that a line will be built northward for a distance of about 1,000 miles to connect with an existing line to Port Darwin on the coast of the Northern Territory.