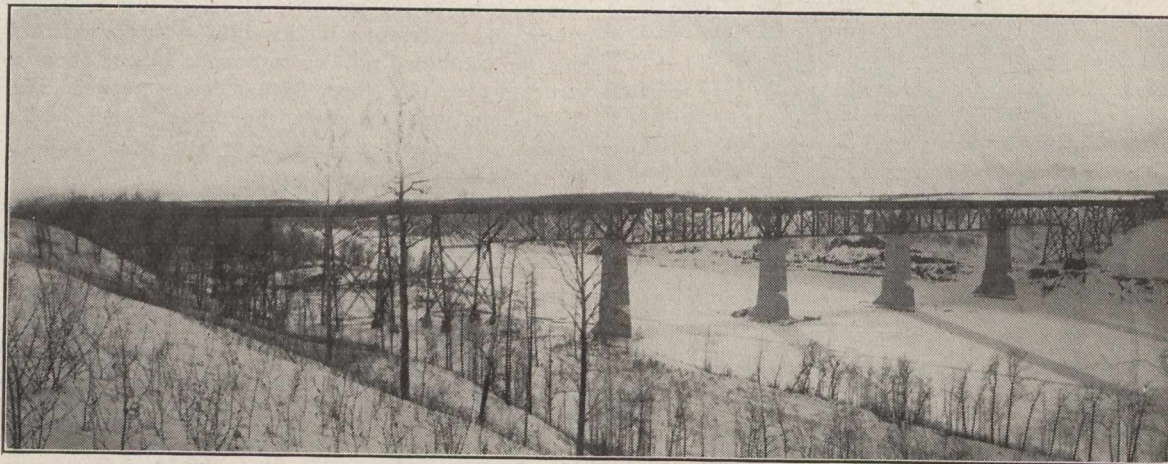


long and one deck lattice truss 167 feet long carried on rigidly braced riveted steel towers. The distance from centre to centre of the columns in each tower is 67 feet 3 inches, and the distance from centre to centre of columns in the adjacent towers is 100 feet. A batter of one in six is given to the legs, which gives a spread of base of the towers sufficient to keep the uplift to a reasonable amount. All the columns are anchored to piers by 2½-inch bolts of such a

following year, during which interval approximately six weeks were lost through bad weather and other causes.

The viaduct across the Old Man River is on the same line connecting Lethbridge and McLeod and about eighteen miles west of the former city. The structure consists of a series of steel towers connected by deck plate girders. The towers have a length of 46 feet and the plate girder spans 60 feet with a height above the river of 140 feet. The founda-

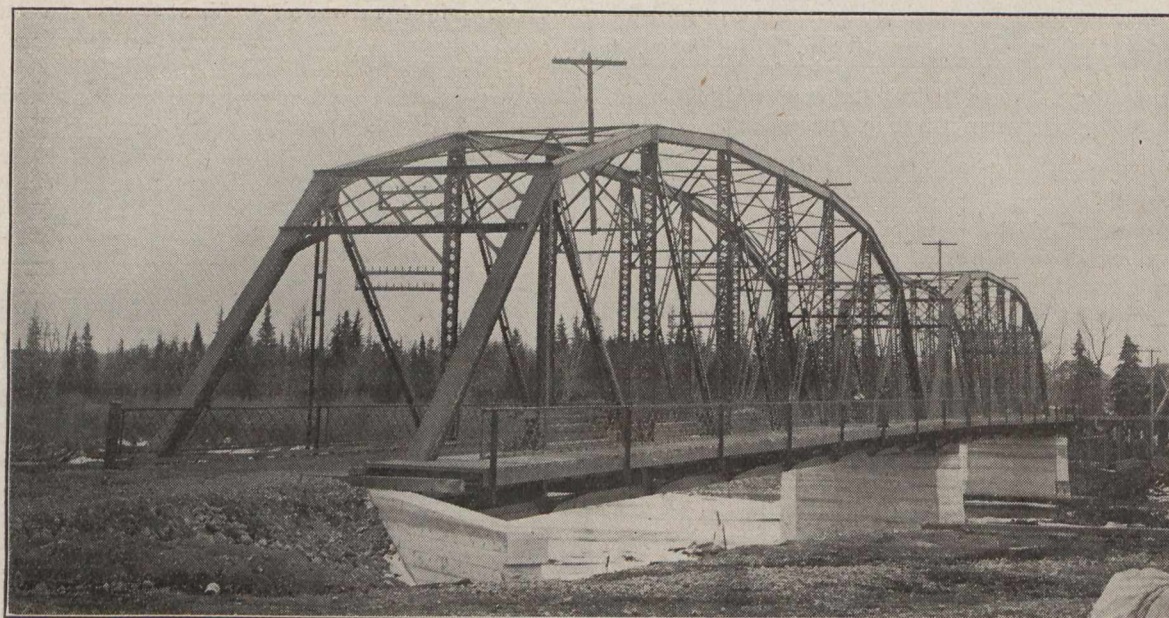


Bridge over North Saskatchewan River at Clover Bar, near Edmonton on Grand Trunk Pacific Ry.

length that they engage a block of masonry equal to one and one-half times the maximum uplift. The height from river surface to rail level is 314 feet and the highest tower 285 feet from top of pier to bottom of girder seat. The girders have a depth of 8 feet ½-inch, and the base of rail from top of girder is 3 feet 10 inches. A special traveller was designed to erect this work, which when loaded had a weight of 712,000 lbs. Special suspended platforms and cages were also pro-

tions consist of a series of concrete pedestals carried down to hard pan bottom. The steel work was erected by means of a derrick car operated from the deck of the bridge, thus cutting out the expense of false work.

The bridge to be erected during the coming season between Strathcona and Edmonton will have a total length of 2,687 feet, a height above the river of 150 feet, and will require 16,000,000 lbs. of steel in its erection. Commencing



Two 200-Foot Spans of Highway Bridge over the Red Deer River, Red Deer.

vided for safely carrying on the work, and it is to the credit of the erectors, "The Canadian Bridge Company," that but one fatality directly connected with the work occurred. The bridge is supported on concrete pedestals, which in turn rest on Raymond concrete piles. The amount of steel in the structure is 12,200 tons; concrete, 17,090 cubic yards, and excavation, 22,980 cubic yards. The erection of steel commenced in August 1908 and was completed in August of the

from the Edmonton end there will be one 100-foot plate girder span followed by two deck lattice truss 120-foot spans. The river is crossed by three 290-foot deck spans and the Strathcona flats by seven deck truss spans of 95 feet, each supported on a series of seven steel towers with a length each of 46 feet. These are followed by a series of five plate girder spans 60 and 70 feet in length supported also on steel towers, each having a length parallel with the bridge of