Volume 28. Toronto, March 18, 1915 Contents of this issue on page 5

The Canadian Engineer

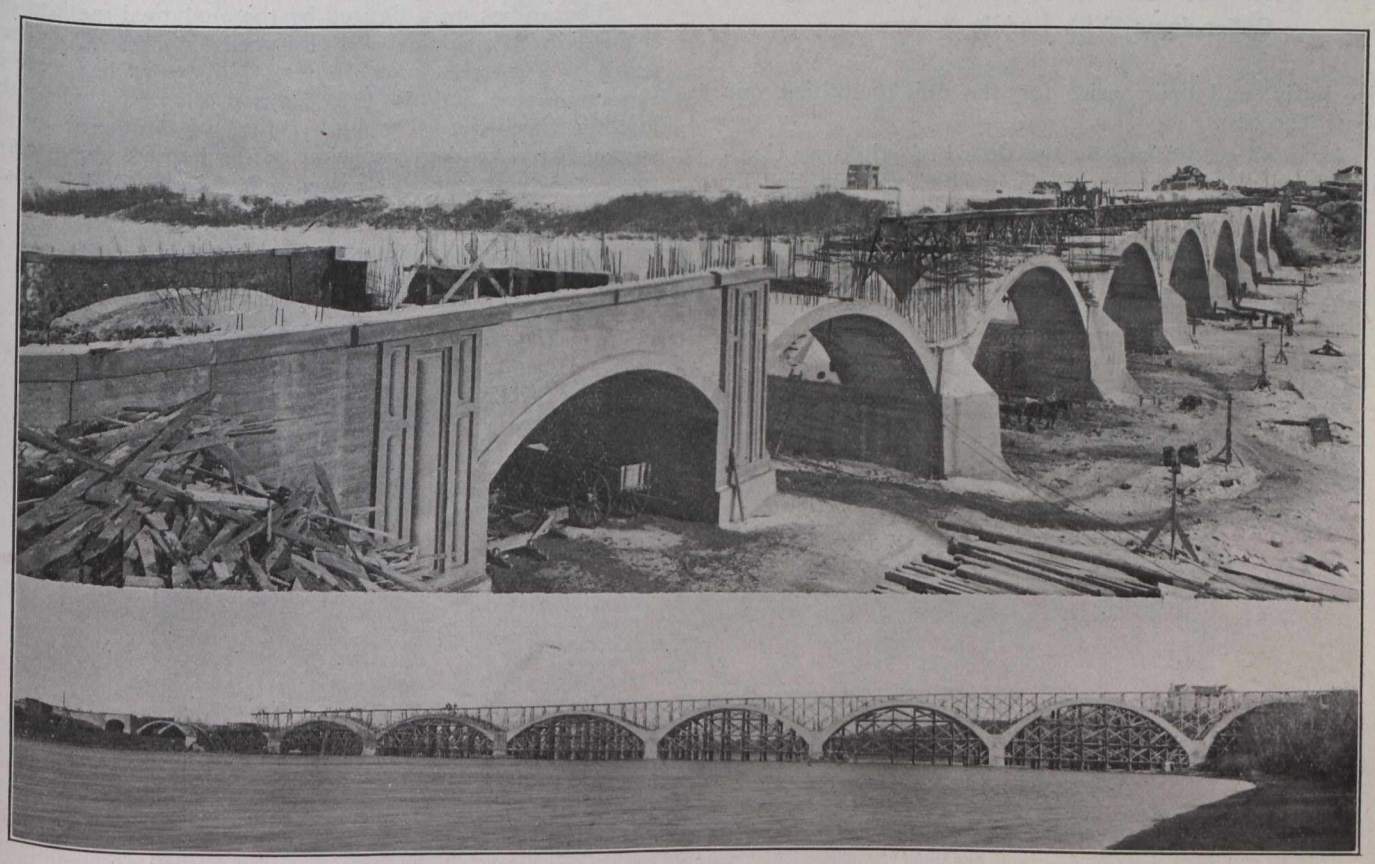
A weekly paper for engineers and engineering-contractors

NEW HIGHWAY BRIDGE AT SASKATOON, SASK.

A REINFORCED CONCRETE STRUCTURE OF TEN SPANS OF ARCH RIBS WITH SPANDREL WALLS AND COLUMNS—A 1,250-FOOT BRIDGE WITH FLOOR ON A GRADE OF 2.88 PER CENT.

THE City of Saskatoon, with a population of about 30,000, is situated on both banks of the south branch of the Saskatchewan River, and is served by a single highway bridge. This was built in 1907 and is a steel superstructure on concrete piers. In June, 1912, the Board of Highway Commissioners of Saskatchewan took up the matter of providing a second bridge. A conference was held with the city officials of Saskatchewan at which the needs of the city were presented and a site selected. The site chosen was between 25th St. on the city side and Saskatchewan Ave. on the east side. Saskatchewan Ave. is the south boundary of the grounds of the University of Saskatchewan. The river is some 900 feet wide at low water at this point and the elevation of the west bank is 50 feet lower than the east or University side.

Comparative designs in steel and reinforced concrete were made by the Board and finally a series of reinforced concrete arches was adopted as best suiting the requirements.



Views of Saskatoon Highway Bridge During Construction. Upper View Shows Its Present State.

The adopted design was that of a bridge consisting of a series of ten arches with the floor on a grade of 2.88%. Arch "A," a small one of 25-foot span, is earth filled. The other nine vary in spans from 66 to 150 feet and each consists essentially of two 16-foot arch rings 15 feet apart. The floor is supported from these arch rings by spandrel walls. The floor is made up of girders and beams. The total floor width is 65 feet, including two