

Messrs. Vautelet, Modjeski and McDonald, Messrs. Hodge, of New York, and M. J. Butler, then manager of the Dominion Steel Works, were called in for consultation as to what tender ought to be accepted and what design approved. As a result, four out of five advised that the design of the St. Lawrence Bridge Company, on which the bridge has been constructed, should be accepted.

The contract was finally let to the St. Lawrence Bridge Company for the superstructure on April 4th, 1911; that for the substructure having been let to M. P. Davis on January 10th, 1910.

The chairman of the board resigned and was succeeded by Mr. C. N. Monsarrat, as chairman and chief engineer. Mr. McDonald having only agreed to act until such time as the contract was signed, also wished to be relieved of his duties and he was succeeded by C. C. Schneider, of New York, since deceased. Then began the real construction work.

Several changes have been made in the personnel of this board during the progress of the work, and at present it consists of C. N. Monsarrat (chairman and chief engineer), Ralph Modjeski and H. P. Borden, who took Mr. Schneider's place on the board, and the work has progressed under these men for some time.

Launching of Centre Span.—It had been decided to float the span on the morning of September 11th, provided suitable weather conditions were predicted and existed. On September 10th at 11 a.m. the Weather Bureau at Toronto telephoned that there was a centre of low pressure over the Western provinces, Saskatchewan in particular, the barometer reading there being 29.4 inches; and that a centre of high pressure existed over the provinces of Ontario and Quebec, the barometer reading in these localities being 30.4 inches. The forecast for wind was a fresh breeze from the northeast of about 20 miles an hour velocity. On the evening of the 10th at 11 p.m. the report came from Toronto of the existing meteorological conditions and the

wind velocity forecast for the morning of September 11th. The centre of low pressure had moved from Saskatchewan to Brandon, Manitoba, in twelve hours, the barometer reading being 29.18 inches. The centre of high pressure was still over Ontario and Quebec, the barometer reading being 30.46 inches, and the forecast for the wind was moderate easterly winds with a velocity of from 12 to 14 miles per hour. The electric storm detector at the bridge site showed no indications of any coming disturbances, and the night was clear and cold, with practically no wind. It was therefore decided to float the span.

The scows had all drained by 11 p.m. September 10th and the tide was still falling. The valves in the bottom of the scows were therefore closed between 11.45 and 12.45 o'clock midnight. The tide gradually rose and at 3.30 a.m. the span was floating free of its end supports, the whole structure being carried by the scows. The calculated draft of the scows while carrying the load was 8 ft. 2 ins. Measurements showed that the actual draft was 8 ft. 3 ins.

The morning broke cold and clear except for a slight mist which floated over the surface of the river obstructing the view to a small extent, but it was seen that this was gradually rising and dispersing. Two tugs of about 500 h.p. capacity were attached to the stream side of the span, one at each end. The span was first moved out of its berth

by the pull from the hoisting engines, situated on the floor of the span at each end, the reaction from the pull of the engines being taken by the end supporting bents. The two tugs took up the slack in their towing cables of about 3 ins. in diameter, at 4.38 a.m., and the span gradually moved out at the rate of about 10 ft. a minute. By 4.50 a.m. the span had moved 88 ft. and was clear of the supporting bents. Four minutes later the shore lines were cast off except the one leading downstream which held the span against the four-mile upstream tidal current, and as the span moved out it swung about the

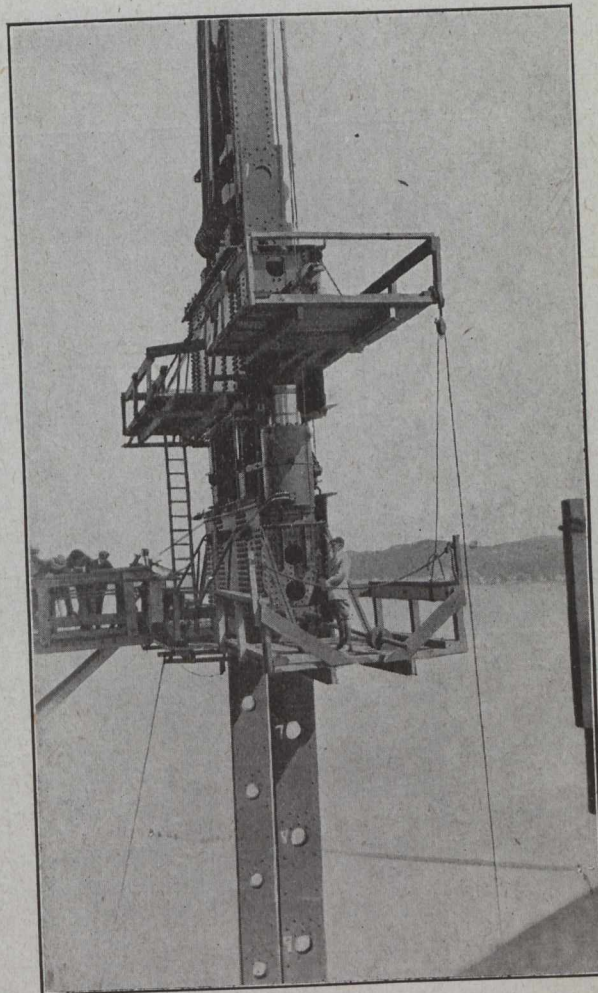


Fig. 3.—Showing Powerful Jacks in Position; Also the Lifting Chain in which Pins were Inserted as Centre Span was Elevated.

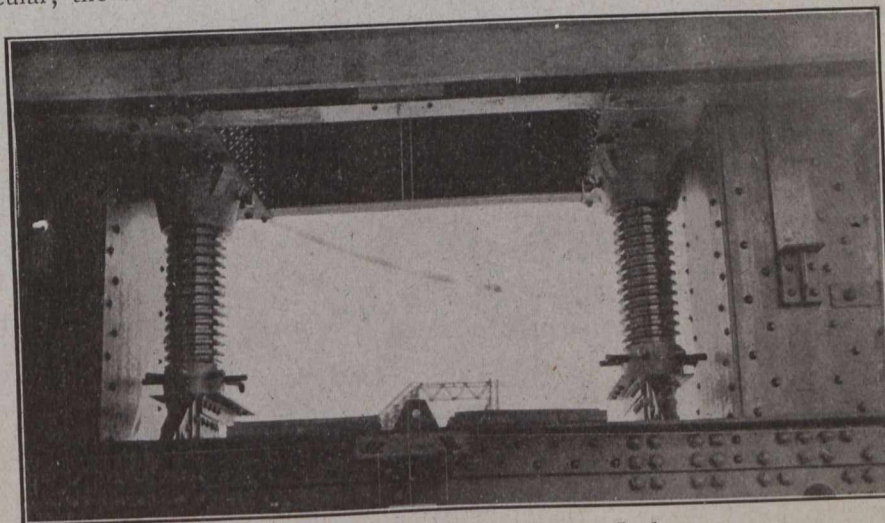


Fig. 4.—Hand-operated Screw Jacks.

The upward stroke of the hydraulic jacks was followed by these jacks to provide against dropping the load through any accident to the hydraulic connections.