

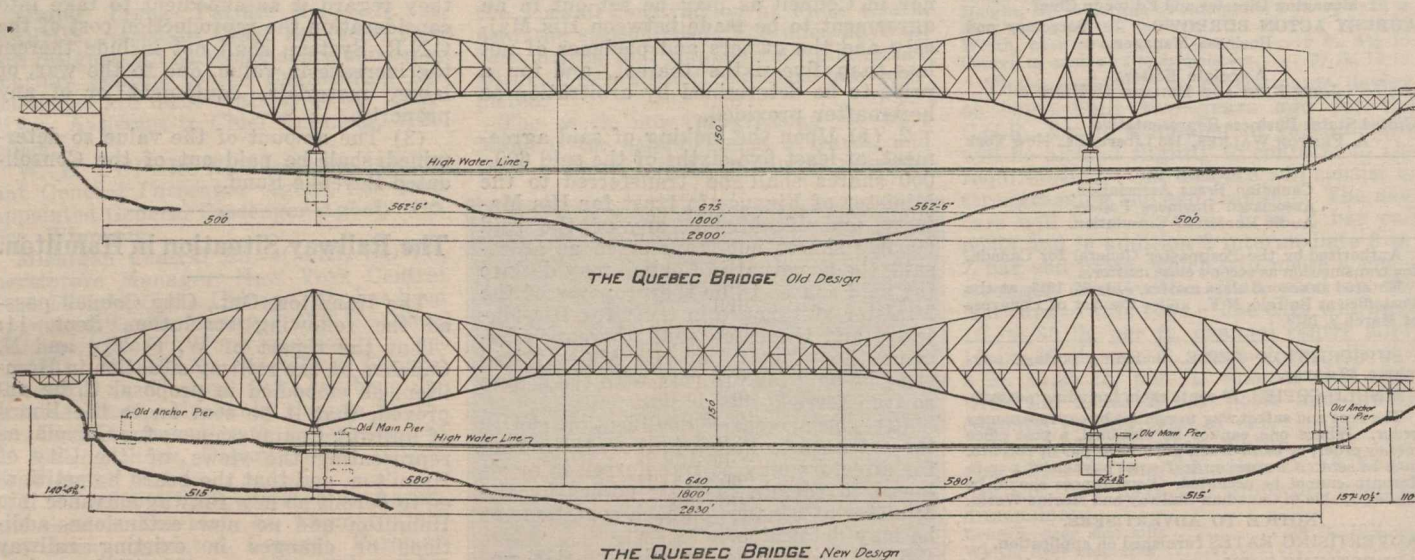
# The Quebec Bridge from its Inception to the Placing of the Suspended Span.

The bridge across the St. Lawrence River, near Quebec, is an accomplished fact. The project was first discussed in 1853, but for one reason or another it was not until 1897 that a really serious endeavor was made. It took four years from the reorganization of the old company to the letting of the contracts, and six years later the bridge, when nearly half completed, collapsed. The Dominion Government then took the matter in hand and after nearly three years of investiga-

of the engineers of the then newly completed Forth bridge in the undertaking. The idea then advanced was to erect a bridge on the cantilever plan, which the erection of the Forth bridge had demonstrated to be the last word in big bridge designing. This second proposal also failed to get beyond the project stage.

The third attempt was made in 1887, when the Dominion Parliament incorporated the Quebec Bridge Co., with an authorized capital of \$1,000,000, to build a

railway, and 2 ordinary roads for vehicles and foot passengers. In 1899 the Dominion Parliament granted a subsidy of \$1,000,000 towards the erection of the bridge, and in the following year one-third of this amount was allocated to the substructure and approaches, and two-thirds to the superstructure. On Nov. 12, 1900, a contract under this legislation was signed between the company and the Railways Department. Three tenders were received early in 1900 for the build-



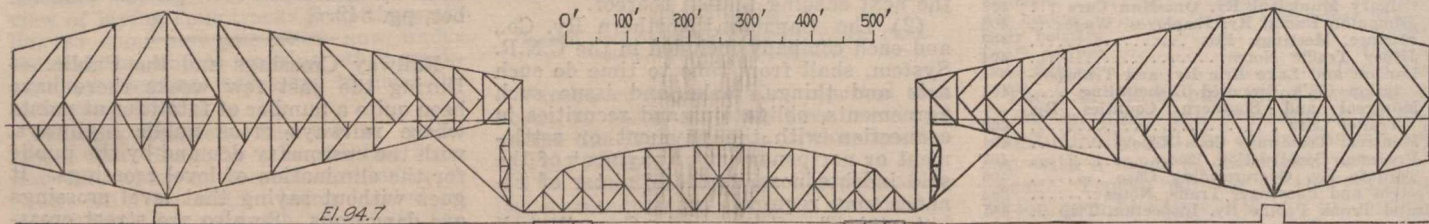
Designs for the Quebec Bridge, for the first one which failed in 1907, and for the second one now erected.

tion, over six years of construction work, and the expenditure of about \$12,000,000, the structure is now in the last stages of completion.

As before stated, the project dates back to 1853, at which date there was no other bridge across the river at any point. A New York engineer, named Serrell, made surveys and prepared plans for a railway bridge, on the suspension principle, to be located somewhere near the site of the present bridge. The estimated cost was \$3,000,000. Whether the cost was considered too great an obstacle, or whether it was a lack of courage on the part of en-

bridge across the St. Lawrence at or near Quebec, to build one or more lines of railway to connect with the bridge, to connect it with existing or future lines of railway, and provide for vehicle and foot passengers crossing the bridge. The provisional directors were: Hon. J. G. Ross, Lieut.-Col. Rhodes, R. R. Dobell, Thos. McGreevy, Lieut.-Col. J. B. Forsyth, G. Lemoine, E. Chimic, H. M. Price, J. I. Tarte and C. Duquet. The company's powers were extended in 1891, and in 1897 they were revived and confirmed, new interests led by S. N. Parent, then Mayor of Quebec, and afterwards Premier of the Pro-

ing of the bridge, that recommended for adoption being for \$3,600,000, exclusive of approaches, which were estimated to cost an additional \$400,000. The contract for the erection of the piers and abutments was let in April, 1900, to W. Davis & Son, Cardinal, Ont., at an estimated cost of \$1,000,000, the work to be completed within two years. Work was started on the substructure in Aug., 1900, the estimated quantity of masonry required to be put in place being 50,000 cubic yards. The preliminary work took up the whole of the summer and the autumn, and it was not until the spring of 1901 that the first



General Scheme for hauling the Suspended Span for the Quebec Bridge.

gineers, nothing further was done, and the first bridge erected across the St. Lawrence was built at Montreal by the Grand Trunk Ry. This was the Victoria tubular bridge, opened for traffic in 1860, and built by Robert Stephenson on the model of one he had previously erected over the Menai Straits, on the line to Holyhead, Wales, and a few years earlier the suspension bridge was built across the Niagara River, also for railway purposes. The project for building a bridge at Quebec to connect that city with the south shore of the St. Lawrence lay dormant until 1882, when M. W. Baby obtained a charter to erect a bridge. He had associated with him A. L. Light, a well known engineer, who interested some

vince, having obtained control of the company. U. Barthe became Secretary of the company, and United States capitalists were interested. A New York engineer undertook the designing of the bridge, and E. A. Hoare was Chief Engineer in charge of all local work. The same site as the present bridge is built on was selected and together with the plans were approved by order in council on May 16, 1898. The plans provided for a cantilever structure, composed of 2 approach spans of 220 ft. each, 2 anchor spans of 500 ft. each, and a centre span of 1,800 ft. from centre to centre of the piers, the under side of the bridge to be 150 ft. above highwater. The bridge was to provide a double track railway, 2 lines of electric

caisson for the erection of the north pier was got into position. The contractors for the superstructure organized the Phoenix Bridge Co., of Phoenixville, Pa., to fabricate the steel work and to erect it. In 1901 that company began operations at the mills in rolling the steel and at the bridge in doing other preliminary work, and the actual construction work was started on the north side of the river in the summer of 1902. During the summer shifting sand was struck at the corner of the caisson for the south pier, resulting in delay to the work owing to the fact that the foundations had to be carried to a greater depth than anticipated in order to secure stability. The substructure work was completed at the end