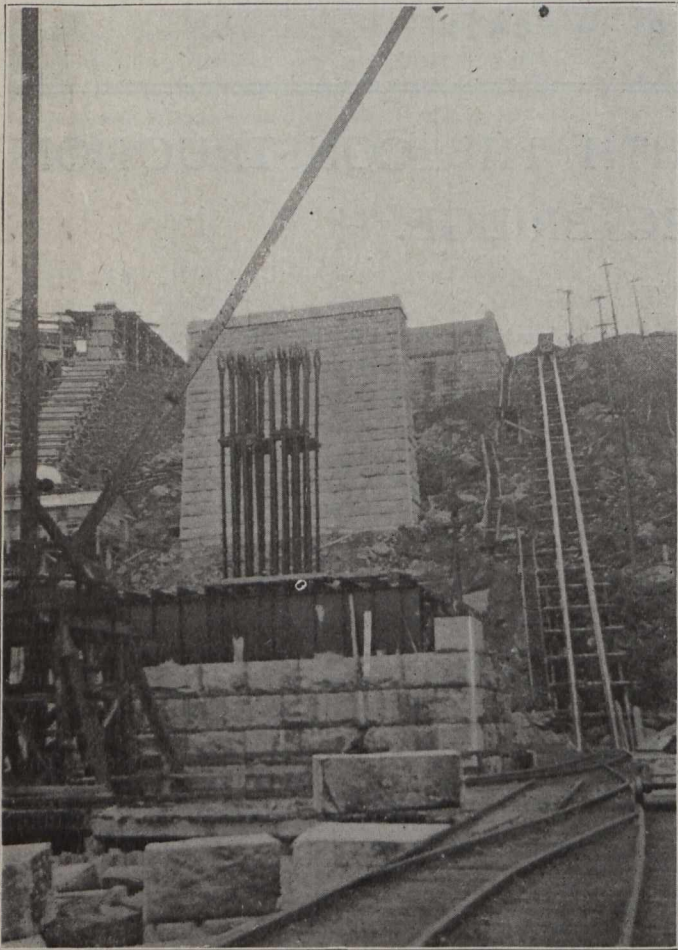


The main posts of this bridge are about 10 feet by 10 feet in outside area and approximately 320 feet high, or equal to the height of a thirty-story building. The shoes on the main pier upon which each of these posts rests are 21 feet by 26 feet square and 15 feet high. Many a family lives in a house



View Showing Lower Anchorage. Girders and Eyebars in Place.

(Also completed intermediate pier and abutment in the background).

considerably smaller. The main bottom chord near the pier is about 10 feet wide and 8 feet high. If it were not for the interior webs and diaphragms six men could walk abreast inside this chord without crowding or fear of hitting their heads. This chord will weigh about 8,500 lbs. per lineal foot and is erected in sections weighing from 75 to 100 tons each. The main floorbeams are approximately 90 feet long and 10 feet deep, and weigh between forty and fifty tons. In most cases they are connected to the truss by pins in order to do away with the secondary stresses in the posts. The top chords of the cantilever and anchor arms are composed of two banks of eyebars of half panel lengths, and are supported by light Warren trusses between main panel points.

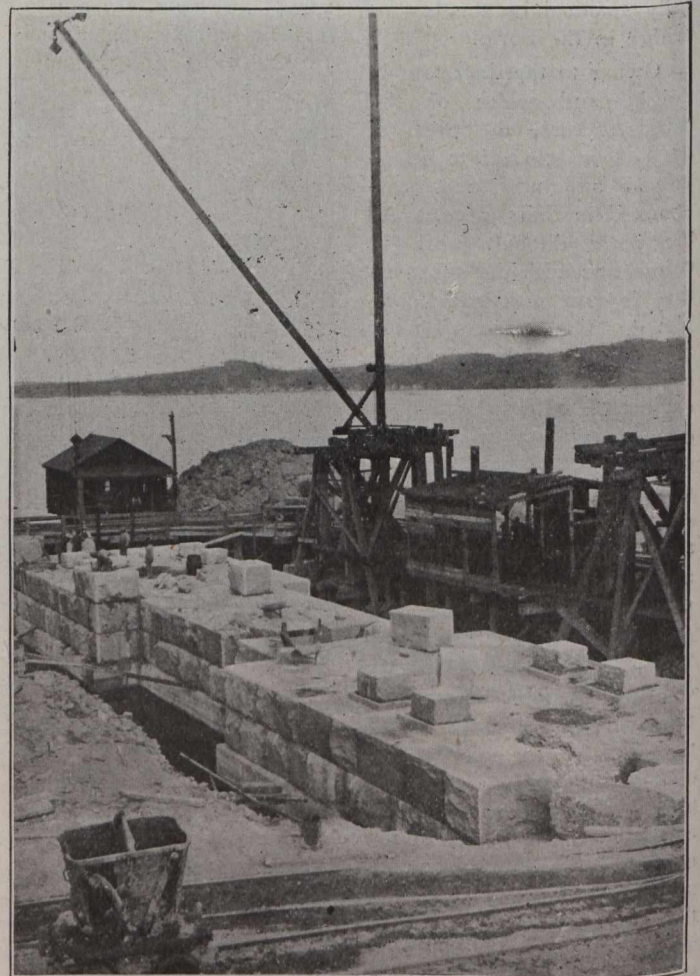
The floor system is designed to carry two railway tracks and two sidewalks for pedestrians. No allowance is made for highway traffic.

Elaborate preparations are being made by the contractors for the erection of this steel work. Erection will be carried on on both sides of the river simultaneously, which means a duplicate erection plant throughout. While this entails somewhat more expense for the contractors it will be justifiable by the saving of time. The anchor arms will be erected on heavy steel falsework which is so designed that the trusses will be carried on falsework independent from that which carries the traveler. The main traveler will be an

enormous structure about 200 feet high and weighing, inclusive of hoisting machinery and tackle, about 900 tons. The traveler is constructed with an overhang from which heavy blocks are suspended and operated by means of electric hoists. Each hoist is capable of lifting 50 tons simultaneously, 60 feet beyond the point of support. The traveler is also equipped with cross gantrys and electric cranes and enormous booms which can handle material in practically every position. The blocks for the dozen or more hoists used in this traveler have all to be specially designed and constructed, many of them being over 5 feet in height and weighing over 5,000 lbs. each.

Probably one of the most interesting features of the erection will be the floating in of the 640-foot centre span. By means of this scheme of erection the difficulty of joining up at the centre is overcome and one year saved in the erection of the bridge.

While the floating in of a bridge span is a common enough occurrence to bridge erectors, yet, taking into consideration the length, weight and height of this span, and also the fact that there is a seven or eight-mile current and a 20-foot tide at this point, it can be seen that this part of the work is also without precedent. It is proposed to erect this span on steel falsework or staging on the shore or in shallow water at some point near the bridge site. This falsework is founded on concrete piers so spaced as to allow pontoons to



Starting Construction of the North Anchor Pier.

(View shows granite bed rock in place upon which steel anchorage is to be placed. Sept. 11, 1912.)

float in between them and under the falsework. When the span is completely erected and ready to be floated, the pontoons are placed in position under the falsework when the tide is low. As the tide rises the pontoons lift the bridge off the concrete piers. After the span has been towed to its