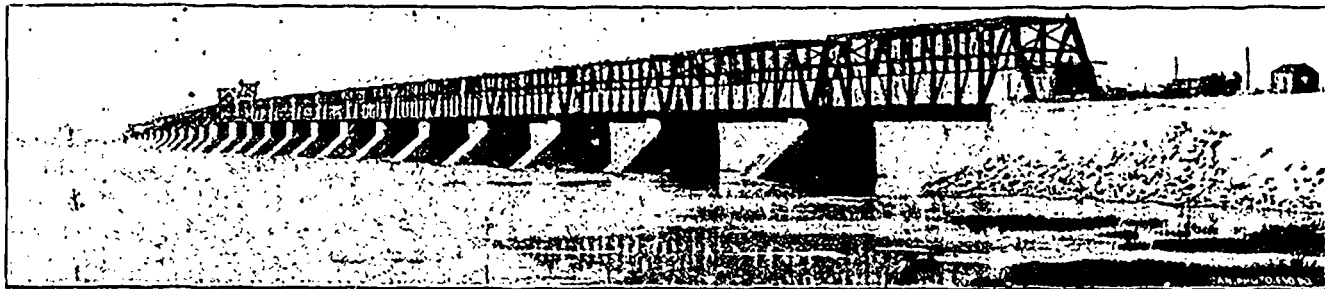


THE VICTORIA JUBILEE BRIDGE.

The Victoria Jubilee Bridge, on which such rapid progress has been made during the past few months, is well under way towards completion; in fact, it may be already said to be completed as far as being self-supporting is concerned, for no portion of it is now dependent upon the erection trusses, and the double line of rails will be laid throughout, just as soon as the old tubular bridge is removed. The work of erecting the superstructure of the first span from the westerly end was commenced on the

two erection trusses, one on each side of the centre, and as each permanent span was completed, the erection truss was moved in a similar manner for the erection of the next one.

The central span being so much greater than the others required a different method for the temporary work, and therefore the two erection trusses were used to form one. The plan adopted was unique; the one used on the westerly side of the centre was cut in two, and one portion of it removed to the easterly end of the one used on the easterly side. On the portion that remained some extra



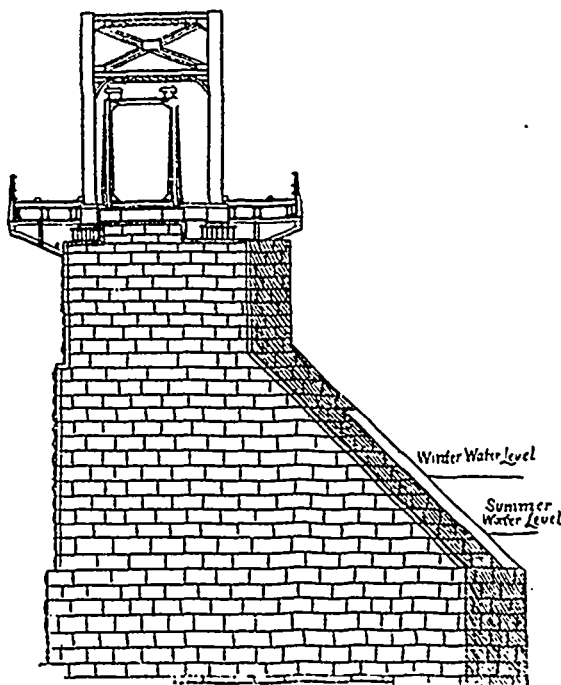
VICTORIA JUBILEE BRIDGE, MONTREAL, SHOWING UNFINISHED CENTRAL SPAN. THE VIEW IS FROM THE ST. LAMBERT SIDE, ABOVE THE BRIDGE.

8th December, last year, and it was completed on the 25th of the same month; but as it was almost impossible to carry on further operations during the winter season, the work of erecting was suspended until last spring. The second span was commenced on March 23rd, and the work progressed steadily during the season, with the result that on the 19th August the central span, which was the last one to be done, was all coupled up and resting upon its own bearings, thus practically completing the bridge proper. This has certainly been rapid work in bridge erecting, considering that between the 23rd March and 19th August, twenty-three spans, of 254 feet each, for double railway tracks and double tramways, and one 348 feet central span, of similar capacity, were erected in place, and that during this period of five months the aggregate amount of time that the present single-track bridge was closed to train service was only twenty-five hours.

The method of erecting the 254 feet spans has been described from time to time, and was carried on throughout on the same general principles. A temporary truss of as light a character as was compatible with what was required of it, was erected in proper axis on the ground at the entrance to the present bridge, and traveled across the tube by means of a series of trucks moving on the rails on top of the tube. Blocking was placed on these trucks to carry the truss by means of its top members, and the wheels were so placed as to distribute the weight as uniformly as possible in passing over the tube. The temporary truss was then drawn across the tube by means of block and tackle, worked by a stationary engine, securely placed on the top of the next tube.

As instance of how perfect the arrangements were for the moving of this temporary truss, it may be stated that the time occupied in the actual passage from pier to pier was only from four to six minutes in each case. After this truss had been placed exactly over its bearings on the piers it was lowered into place and the entire weight removed from the tube. During its passage over the present bridge and until it was securely placed upon its own bearings on the piers no trains were allowed to pass through the tube. This temporary truss being twenty-six feet two inches wide and thirty four feet ten inches high, centre to centre of post and chords was therefore completely clear of the tube, and was then used as the staging for the erection of the permanent bridge. There were

members were placed, forming a cantilever arm, and it was moved forward into position over pier No. 12, and securely anchored to the permanent bridge. On the half that was taken to the easterly side a similar cantilever arm was attached, and on August 7th the erection truss which had not been divided was traveled westwardly over the centre tube intact, in a similar manner to the others, and the pins driven connecting it with the west cantilever arm. The east end cantilever was then moved over pier No. 13, and after it was adjusted to proper position the pins were driven connecting the cantilever arm with the truss and it was firmly anchored at the east end to the permanent bridge.



THE ELEVENTH PIER AND SECTION OF TWELFTH SPAN.

The blocking on the trucks which supported the truss and carried it across the tube was then removed and this temporary span then rested on its own bearings, all foreign weight being entirely removed from the tube. Notwithstanding the exceptional care which had to be exercised in placing this truss, the time that the present bridge was closed to traffic was only five hours.

In regard to work remaining to be done in connection with the bridge proper the removal of the old tubes will be