

## CHAPTER XX.

### PROGRESS MADE, 1857.

The work on the river commenced this spring on the level of the water permitting. Solid crib-dams were put in for piers No. 8 and 9, by Mr. Normand, sub-contractor, and the floating-dam towed up from Boucherville and sunk in place for pier No. 18. This position, being about 1300 feet from the nearest built pier, was determined trigonometrically from the south shore. The chain attached to the iron anchors driven into the bed of the river, were fished up and the correct position verified. Somewhat greater difficulty was encountered with this pier, than its mate No. 7, on account of the greatly increased depth of hard-pan, and boulders lying over the rock. These troubles were easily surmounted, and enabled the masonry of the pier to be completed early in the season, when the coffer-dam was taken back to winter quarters for the next year's operations.

In pumping out No. 8 and No. 9, it was found an almost impossible task to reach the bed of the river. An enormous quantity of boulder-stones formed the deposits, on which the upper ends of the dams rested, rendering it next to impossible to cut off the connection between the inside and outside by sheet-filling and puddle. The consequence was, that with all the pumping power possible to be applied, very little headway could be gained against the seive-like interstices of the boulders. Dogged perseverance in pumping and pile-driving at last enabled Mr. Hodges to see the bottom of No. 9, and after removing an immense quantity of material above the rock, notwithstanding