

## CHAPTER IV.

### MASONRY.

THE contract for the masonry of the bridge was originally let to Messrs. Vipond and Walker, of Kansas City. On the 1st of July, 1867, Mr. Walker retired from the firm, and his place was supplied by Mr. J. H. Burns ; on the 25th of November, in the same year, Mr. Vipond died, and the work under the contract was completed by Mr. Burns.

By the terms of the contract the Company agreed to furnish all derricks required for handling stone, both at the quarries and on the river, and also stone-boats for transporting stone to the pier sites, and the use of their steam-boat to tow these boats to the points desired. The contractors were to furnish all smaller tools, to provide power for the derricks, and to keep derricks and boats in repair while in their use. The cement was to be purchased by the Company and charged to the contractor at cost.

The stone used was limestone, the greater part of which was quarried in the bluffs south-west of the city, and within three miles of the bridge site ; a quarry was also opened on the north side of the river, from which a portion of the stone used in Piers 5 and 6 was obtained. Several varieties of stone were worked, the best of which was a compact blue limestone, of nearly uniform color, found in continuous layers varying from 15 inches to two feet in thickness. As this stone could not be obtained in large quantities without very expensive stripping, its use was confined to the ashlar work of the upper parts of the piers ; the whole of the piers, below the top of the ice-breakers, was built of a more coarsely grained stone, of a white or gray color, which worked into thicker courses than the blue stone, and which was used for backing throughout. The stone was quarried in the summer and early autumn of 1867, so as to allow a sufficient time for seasoning ; it was found in general to stand the frost well,