

**SETTING THE HEAVY GRANITE COLUMNS ON THE HALL OF RECORDS.**

The handsome Hall of Records which is now building at the corner of Chambers and Center Streets is beginning to take on material form and to show forth the beauty of its design. Eight of the huge columns which are to adorn its exterior have been delivered and set up in position on the front of the building. The columns are the largest monoliths so far used in this city, having a shaft 4 feet 2 inches in diameter, and 36 feet long. The capitals are 6 feet in height and the base-stones 2 feet thick. The weight of each shaft is estimated at between 38 and 40 tons. The base-stones weigh 6 tons, and the capitals, carved from 19-ton blocks of granite, are estimated as weighing 15 tons. The columns were quarried from a white granite called Hallowell granite from Hallowell, Me. This stone, due to the homogeneity of its grain can be easily carved. It does not, however, take a good polish, and is ordinarily, as in this case, finished in the rough. One of the greatest difficulties in quarrying large blocks of stone is to find a suitable platform of stone free from cracks or flaws. Granite is a stratified rock, and whenever a large flawless layer of sufficient thickness is discovered, it is carefully reserved for use in filling large orders. When such an order comes the edge of the granite layer is faced and the required block is broken away by a moderate charge of powder placed in holes at frequent intervals along the desired line of fracture. The stones are then cut by hand to the proper shape, patterns being continually used to insure a perfect form. It took six to eight weeks to shape and flute each of the shafts shown in our illustration. When completed they were carefully boxed and sent by rail to Mott Haven, whence they were lightered to Pier A, at the Battery. From this point the truck shown in our illustration was used for carting each column to the building. The hauling was done at night when lower Broadway was practically deserted. In order to prevent the trucks from sinking into the asphalt street at the pier, planks were placed under the wheels and then the huge stone was lifted by a powerful derrick and lowered gently onto the truck. Twenty-two horses were used in carting the shafts to their destination, and in passing up Broadway depressions were constantly made in the street and man-holes were cracked and broken.

The problem of setting the columns was no small one. The derricks available had each a lifting power of 25 tons, and it was necessary to use two at a time to raise each column. It was important that each derrick should bear an equal part of the burden, for should a greater weight than 25 tons be accidentally shifted onto one of the derricks, a catastrophe would result. In order to preserve an exact balance of weight, a single stretch of cable was used for both derricks, the cable passing around an equalizer block which may be seen in the engraving between the two four-sheave blocks. Special care had to be exercised to protect the fluting from injury while the shaft was raised. Half round birchwood sticks, spaced and sized to fit snugly into the channels, were nailed to oak blocks, and the chains were then wrapped over these blocks

around the shaft. Lewises were anchored in dovetail openings in the top face of the shaft and to these a block was lashed which abutted the ends of two of the side blocks. The purpose of this was to prevent the birch sticks from sliding along the fluting and

so connected to the top of the column that any upward movement of the latter would result in a forward movement of the cradle. This advance motion was assisted by the use of hand-spikes as the shaft approached the vertical. The purpose of this device was to prevent sidewise swing of the derrick boom and to assist in the rapid setting of the columns. Twenty-four more columns are to be placed on this building, making thirty-two in all. The dimensions of these columns are the same as those just described, except that instead of having a round cross section, they are cut away along the rear surface where they will come in contact with the building.



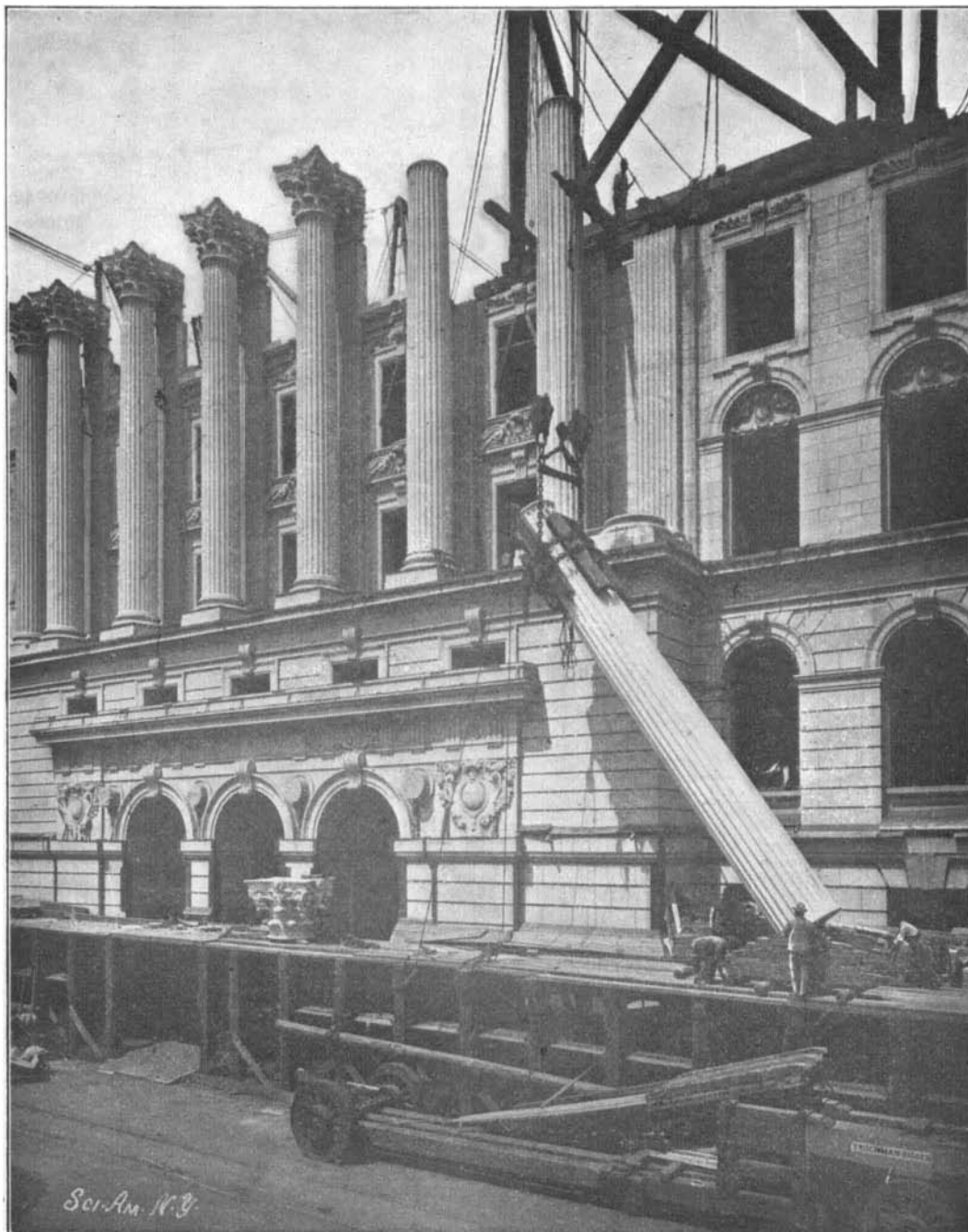
**THE END OF SEVERO'S AIRSHIP.**

breaking the stone at the end of the channels. Another difficulty which presented itself was the danger of damaging the butt of the shaft if it were permitted to bear the weight of the stone while being raised to vertical position. This difficulty was overcome by building a cradle, as illustrated, and resting the column on a round stud extending between the side walls. Two 3-inch steel pins inserted in the base of the shaft straddled this stud to keep the stone from slipping. The cradle was mounted on rollers and was

of Paris. The airship mounted at 5:40 A. M. A few minutes after the departure, when the balloon had risen to a height of 1,000 feet over the city and half a mile from the shed, a formidable explosion occurred, followed by a rapid fall of the airship, which was smashed to pieces on the Avenue du Maine. The two aeronauts were instantly killed.

The balloon "Pax," which has been recently described, was constructed at the Lachambre establishment, where the different balloons of Santos-Dumont were built. It was kept in an immense shed 100 feet high which had been built especially for it. It will be remembered that the form of the balloon is cigar-shaped, somewhat resembling that of Santos-Dumont's, except that the car, instead of being suspended below the body by cords, is partly surrounded by the balloon, the upper part being contained in a longitudinal groove which ran the whole length of the balloon body. It is also much larger and contained 80,000 cubic feet of gas. It was inflated with pure hydrogen, generated on the spot. The balloon had been filled for several days previously and had made a few trials in the adjacent grounds, and M. Severo was only waiting until the prevailing bad weather had ceased in order to make an ascension. On the preceding evening the weather cleared, and at midnight the preparations were commenced for a trial the next day. The workmen gave a final filling to the balloon and the operation finished at dawn, when the airship was taken outside.

Except for a light mist, the sky was clear, and a feeble west wind was blowing. Some preliminary trials were made near the ground, and the balloon seemed to make its evolutions with perfect ease, as it turned twice to the right and twice to the left and appeared to be easily handled. This encouraged M. Severo to make an ascent at once. It was his intention to steer against the wind and gain the maneuvering grounds at Issy, outside the city toward the west. As soon as it was let go the balloon mounted rapidly to a height of 1,000 feet, and then was



**LIFTING A 40-TON COLUMN TO POSITION ON THE NEW HALL OF RECORDS, NEW YORK.**

**THE SEVERO AIRSHIP CATASTROPHE.**

BY OUR PARIS CORRESPONDENT.

One of the most terrible accidents in the history of aeronautics is that which recently occurred at Paris, resulting in the death of the Brazilian inventor Severo and his aid, M. Saché. It was on the 12th of May that the dirigible balloon "Pax" made a free ascension for the first time from the Lachambre Aerostatic Park in the western part