J. B. & J. M. CORNELL.

Rolled Iron Columns.

No. 162,999. Patented May 11, 1875.

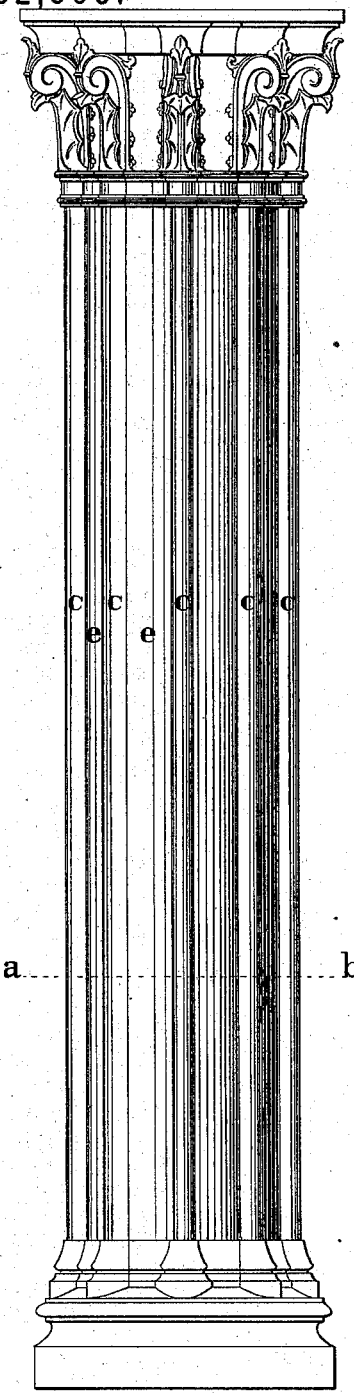

Fig. 2.

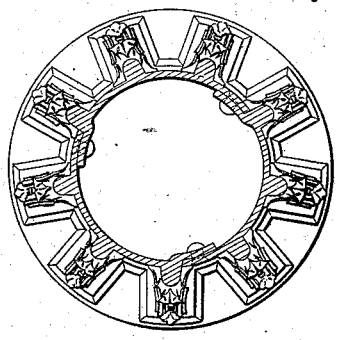

Fig. 4.

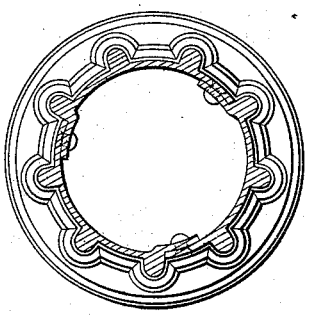

Fig. 3.

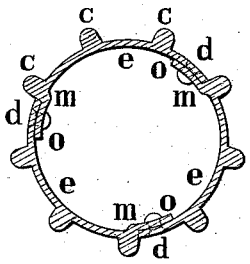

Fig. 1.

Witnesses

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UNITED STATES PATENT OFFICE.

JOHN B. CORNELL AND JOHN M. CORNELL, OF NEW YORK, N. Y.

IMPROVEMENT IN ROLLED IRON COLUMNS.

Specification forming part of Letters Patent No. **162,999**, dated May 11, 1875; application filed April 22, 1875.

To all whom it may concern:

Be it known that we, JOHN B. CORNELL and JOHN M. CORNELL, of the city, county, and State of New York, have invented certain new and useful Improvements in Rolled Iron Posts or Columns, of which the following is a specification:

The invention relates to the use of segmental bars or plates of rolled iron, each having strengthening-ribs rolled upon and forming part of the same, with a strip along one edge wide enough for a riveted joint-lap, set inward to an extent equal to the thickness of the plate, and the several segmental ribbed plates riveted together with lap-joints, forming an inclosing figure, circular or otherwise.

Referring to the drawing, Figure 1 is a cross-section of our improved post or column on the line *a b*, Fig. 2. Fig. 2 is a side elevation, exhibiting an applied base and capital; Fig. 3, a plan of the applied base, and Fig. 4 an inverted plan of the applied capital.

The post or column is formed of the rolled bars or plates *e* of segmental form, provided with longitudinal strengthening-ribs *c*. The portion *m o* of the plate *e* is set inward when formed in the rolls, so that when riveted to the other edge of the next plate, as shown at *d*, Fig. 1, the regularity of the form of the other perimeter is maintained—a highly-important consideration when it is used as an architectural column, and always desirable.

The object of the ribs *c* is to prevent the crumpling of the plate when subjected to great compressive strains. We prefer to make them of the form shown in the drawing, and to drive the rivets flush with the outer surface, but these particulars may be varied. The applied base and capital may be of any desired design, and made of cast-iron or other suitable material, and may be employed or omitted, as desired. We make no claim with regard to them.

To make a good finish to the column it is important that the joint be practically hidden. This has been proposed before for columns made of rolled segmental ribbed plates having one edge rabbeted, as now proposed by us, as in Halstead's Patent No. 91,125, dated June 8, 1869, where this is sought to be accomplished by riveting a separate bar of iron having a lunar form cross-section over the joint. We do it by the entirely different and preferable method of making the joint immediately at the side of the rib, and thus avoid the necessity of cutting rivet-holes through the thickest part of the rib, wasting its strength and adding to the cost of the column.

Our method leaves us free to adopt any desired form or dimension of rib, while if it is made wide enough to serve as a cover to the joint, its practical variation of form and dimensions is brought within very narrow limits.

What we claim is—

The improved post or column herein described, formed of the rolled segmental ribbed plates *e* with the strips *m o* along one edge set inward when formed in the rolls with the shoulder *m* of the rabbet immediately back of one of the ribs *c*, so that the joint on the outside will occur against the side of the rib, and thus be practically hidden, and the segments riveted together with the lap-joint *d*, as shown and described.

JOHN B. CORNELL.
JOHN M. CORNELL.

Witnesses:
ALBAN C. STIMERS,
THOS. CROCKER.