

WILLIAM S. SHOFFER,

Column.

No. 83,226.

Patented Oct. 20, 1888.

Fig. 1.

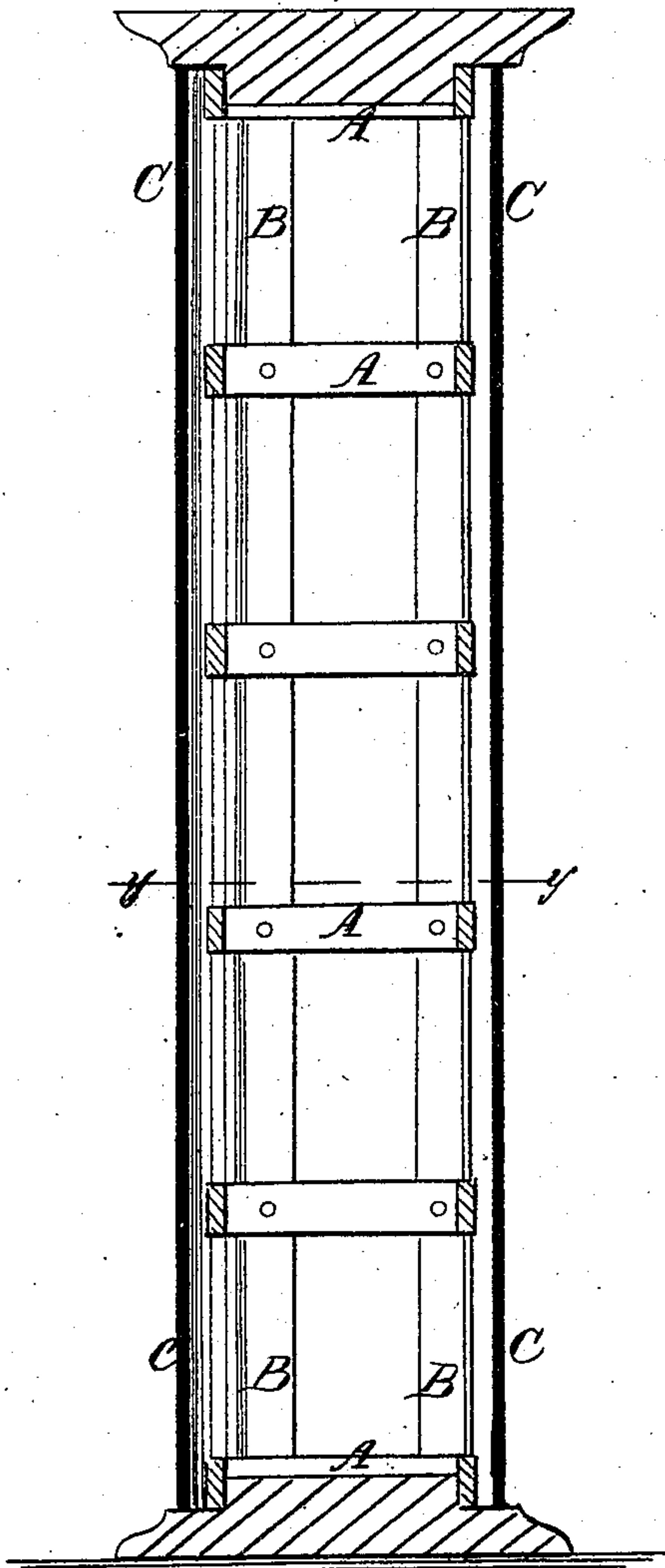
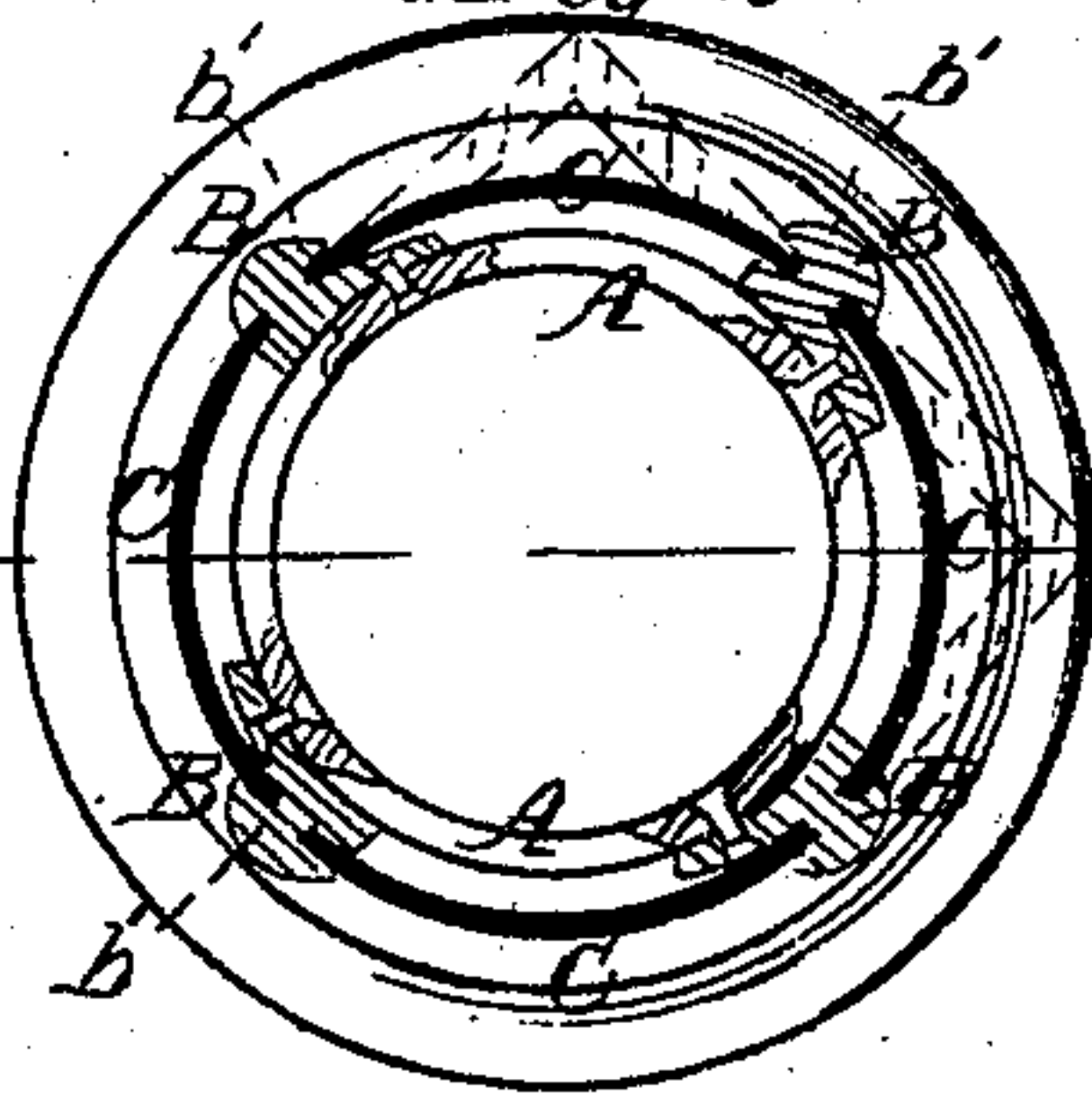


Fig. 2.



Witnesses:

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GEORGE WALTERS AND THOMAS SHAFFER, OF PHOENIXVILLE,
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Letters Patent No. 83,226, dated October 20, 1868.

IMPROVED WROUGHT-IRON COLUMN.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, GEORGE WALTERS and THOMAS SHAFFER, of Phoenixville, in the county of Chester, and State of Pennsylvania, have invented a new and useful Improvement in Wrought-Iron and Steel Columns; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical longitudinal section of our improved column, taken through the line *x x*, fig. 2.

Figure 2 is a cross-section of the same, taken through the line *y y*, fig. 1.

Similar letters of reference indicate corresponding parts.

Our invention has for its object to furnish an improved column, which may be made of wrought-iron or steel, which shall be firm, rigid, strong, and neat in construction, adapting it for use in those parts of a building or structure where neatness of appearance, combined with strength, is required.

And it consists in the construction and combination of various parts of the column, as hereinafter more fully described.

A are circular or ring-bands, any desired number of which may be used, according to the desired length and the required strength of the column.

B are longitudinal bars, extending the entire length of the column, and which are secured to the outer or convex sides of the bands A by means of bolts, screws, or rivets, as may be desired.

Upon the outer side of the bars B are formed longitudinal ribs or flanges, *b'*, which ribs *b'* may be formed at one edge of the said outer side of the said bars, as shown in fig. 2.

When greater strength is required, the ribs *b'* may be formed upon the middle part of the outer side of said bars, so that the bars may be secured to the rings or bands A upon both sides of said ribs *b'*.

Upon the sides of the ribs or flanges *b'* are formed

longitudinal grooves to receive the side edges of the segmental bars C, as shown in fig. 2.

The bars C are made in the form of longitudinal segments of hollow cylinders, may be made of wrought-iron, but which we prefer to make of steel, rolled out into the desired form, so as to use the elasticity of the steel for binding the parts of the column together.

The bars C may be made fluted in the shape of angle-irons, as shown in red in fig. 2, or in any other desired form, the particular shape of the said bars being immaterial, so long as they are made concave upon their under side, so as to use the elasticity of the said bars to bind the different parts of the column together.

In putting the parts of the column together, the skewback-bars B are secured to the ring-band A, forming a skeleton column of great strength and rigidity.

The bars C are then drawn into their places by suitable machinery, so as to bind the various parts of the column securely and permanently together.

By this construction, a neat and substantial column will be formed, showing no bolt or rivet-heads upon its outer side.

The number of bars, B and C, used in forming the column may be varied at will, so that columns of a greater or less sectional area may be formed, as desired.

The thickness of the bars C may also be varied at will, so as to form light or heavy columns, as may be required.

We claim as new, and desire to secure by Letters Patent—

An improved wrought-iron or steel column, of which the shaft is formed by the combination of the ring-bands A, skewback-bars B, and binding-bars C with each other, said parts being constructed and arranged and joined to the base and capital, substantially as herein shown and described, and for the purpose set forth.

GEORGE WALTERS.
THOMAS SHAFFER.

Witnesses:

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JAMES KEELER.