

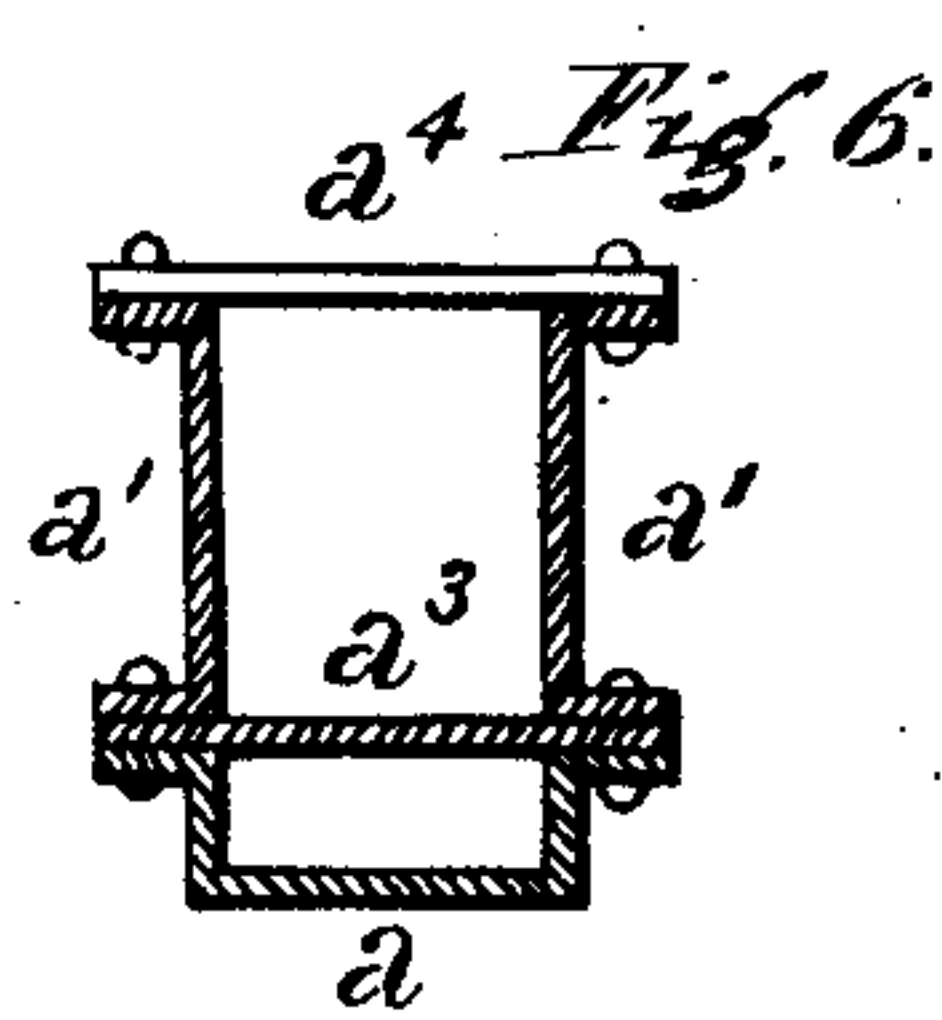
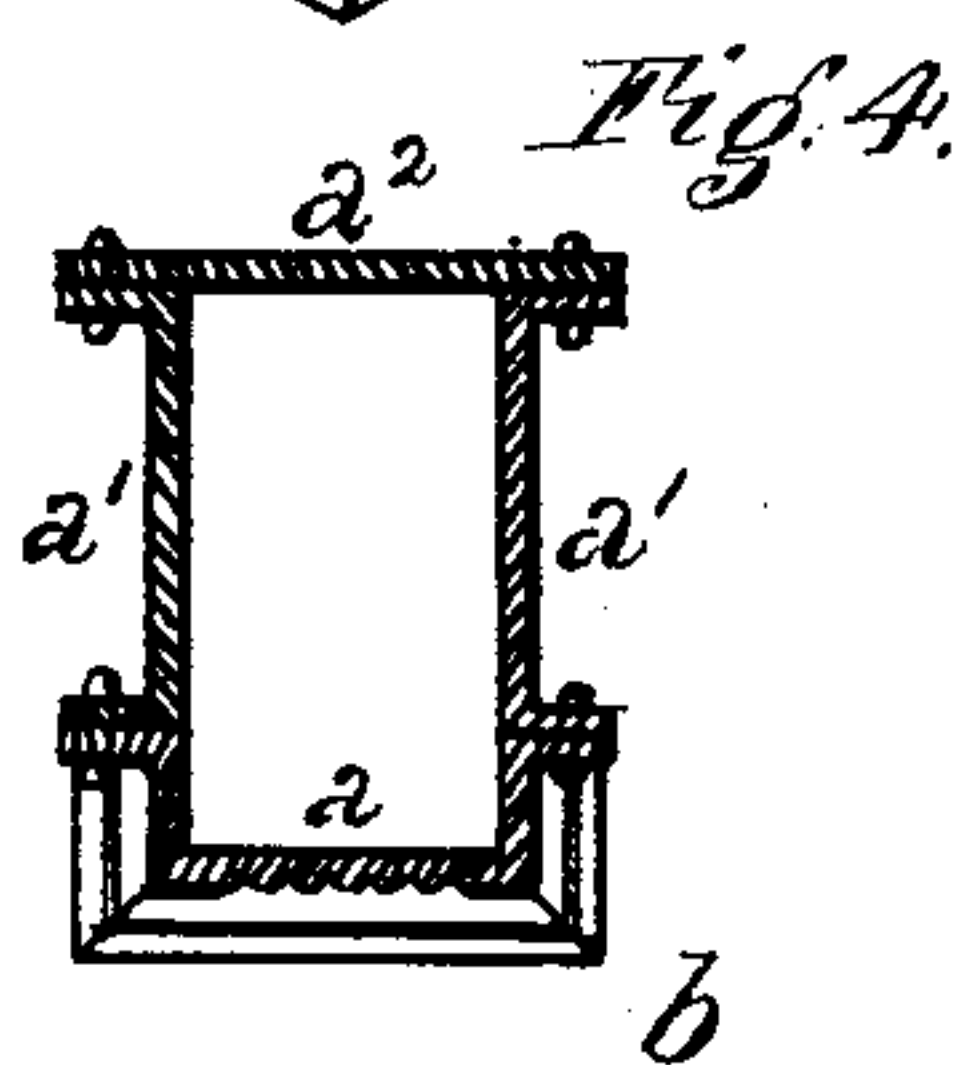
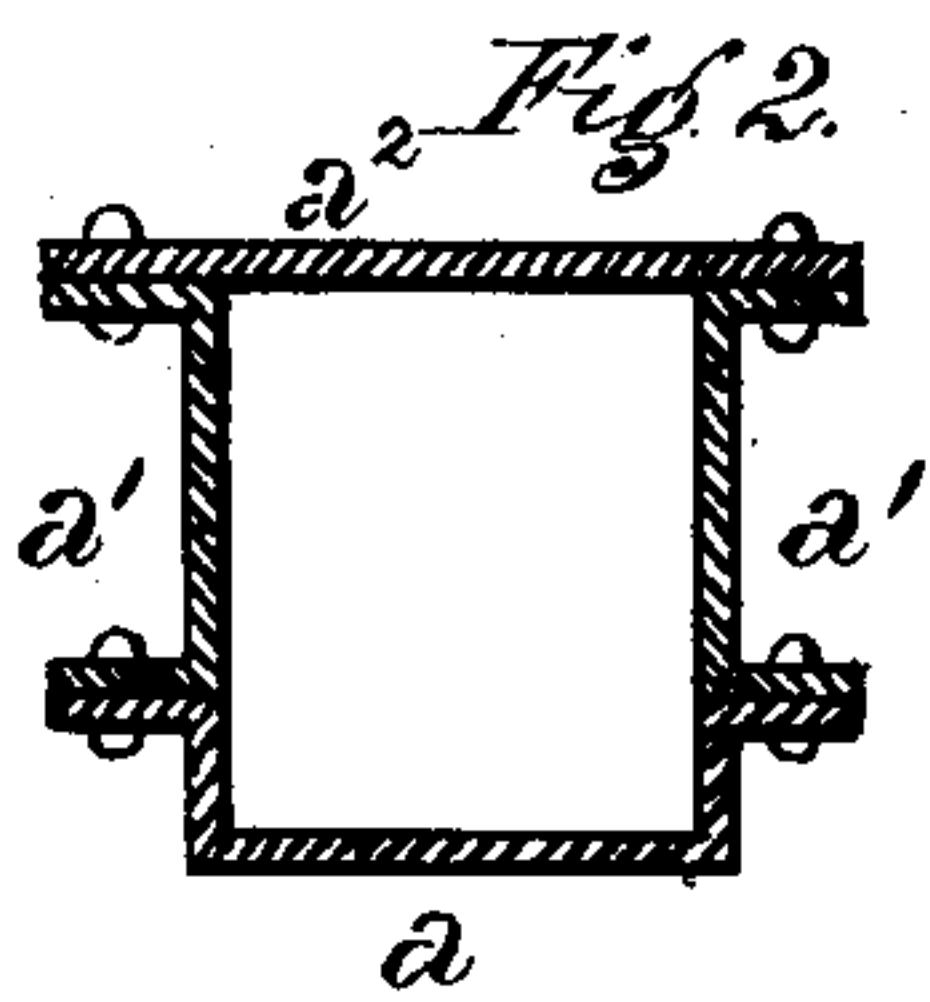
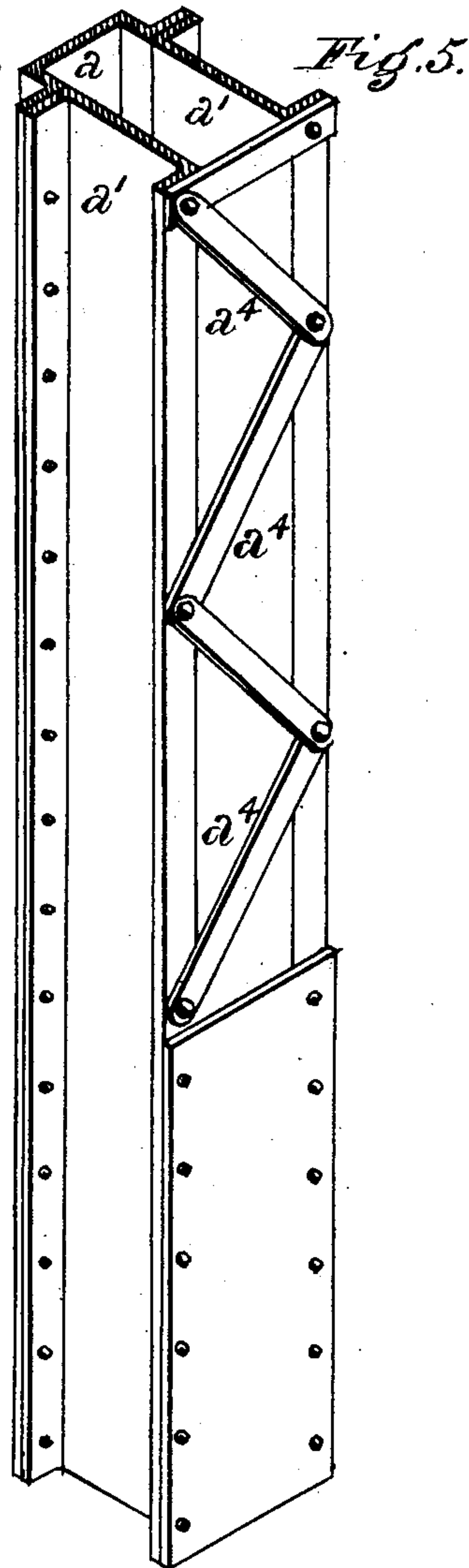
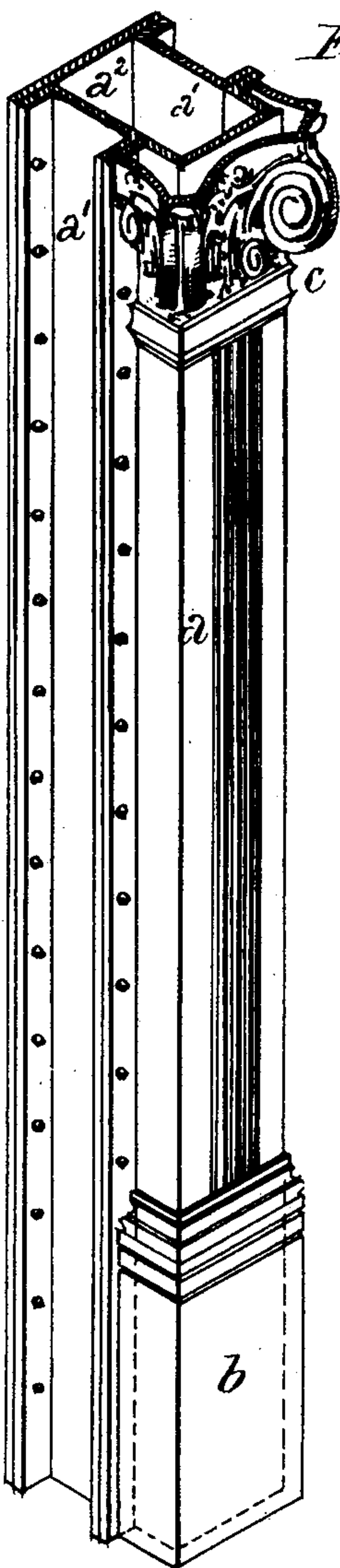
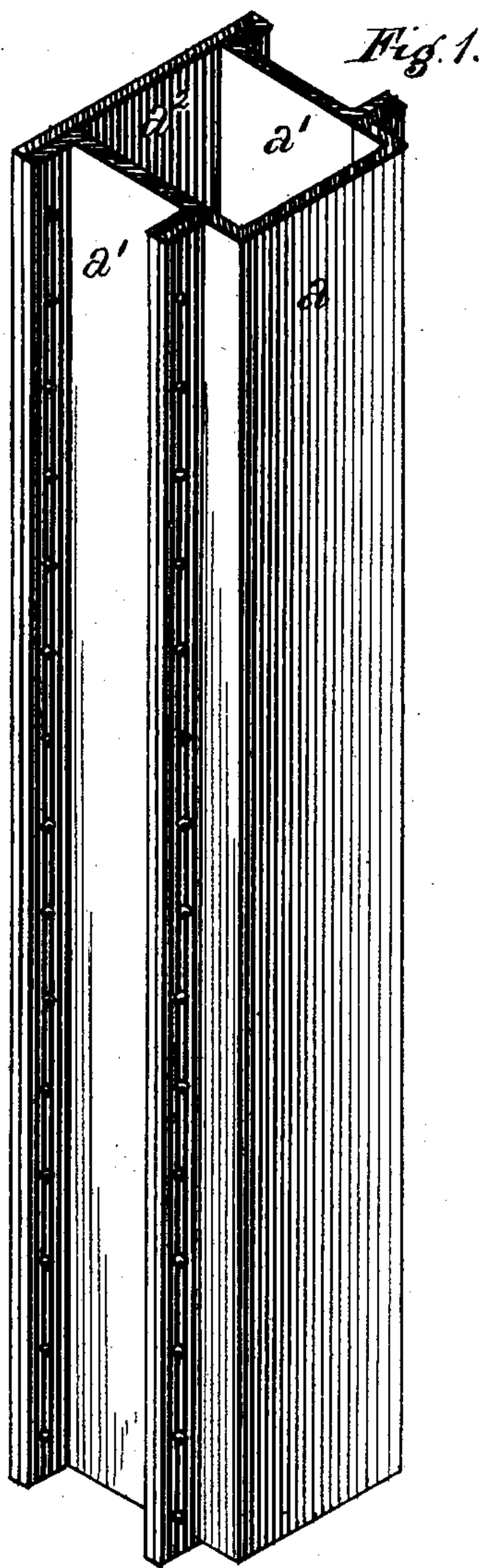
(No Model.)

E. M. BUTZ.

METAL COLUMN, PILASTER, OR GIRDER.

No. 308,829.

Patented Dec. 2, 1884.



Witnesses
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UNITED STATES PATENT OFFICE.

EDWARD M. BUTZ, OF ALLEGHENY, PENNSYLVANIA.

METAL COLUMN, PILASTER, OR GIRDER.

SPECIFICATION forming part of Letters Patent No. 308,829, dated December 2, 1884.

Application filed January 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, EDWARD M. BUTZ, a citizen of the United States, residing at Allegheny, county of Allegheny, State of Pennsylvania, have invented or discovered a new and useful Improvement in Metal Columns, Pilasters, or Girders; and I do hereby declare the following to be a full, clear, concise, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—like letters indicating like parts—

Figure 1 is a perspective section of a column embodying my invention; Fig. 2, a plane transverse section through the same; Fig. 3, a perspective section of a column having a fluted or reeded face and a base and capital; Fig. 4, a plane transverse section through the same; Fig. 5, a perspective section of a column having its back formed partially of lattice-bars, and Fig. 6 a plane transverse section through a column provided with a transverse strengthening-plate.

My invention relates to the construction of metal supporting members for buildings, bridges, and other structural uses; and my improvement consists in a series of rolled-metal plates, of shape or section herein shown and described, united by bolts or rivets, and constituting a composite column, pilaster, or girder.

To carry out my invention I form of rolled iron or steel a front plate, a , a pair of side plates, a' , and a back plate, a^2 . The front plate, a , has in transverse section the form of a hollow-backed rectangular tongue, face, or rib, with a flange at each side thereof, said flanges being in line one with the other. Said plate does not, *per se*, constitute part of my present invention, and is set forth and claimed in another application for Letters Patent by me of even date herewith, marked "Case M." The side plates, a' , are of the form usually termed "channel-iron"—that is to say, a plane body portion, with a perpendicular flange at

each of its sides, or a semi-rectangular section. The back plate, a^2 , is plane, and without flanges from end to end, and in the construction of the column it may be omitted, either in whole or in part, and a series of lattice-bars, a^4 , be employed to connect the rear flanges of the side plates, as shown in Figs. 5 and 6.

Additional strength and stiffness may be imparted to the column by the interposition of a transverse strengthening-plate, a^3 , between the flanges of the front and side plates.

My invention is particularly applicable in the construction of pilasters for wrought-metal fronts for buildings. The flat sides and back present surfaces for the suitable and convenient attachment of lateral members, and in addition to its function as a supporting member the pilaster may be made to serve as an element of architectural design by the addition of a base, b , and capital c , of any suitable metal, which are fitted over the front plate, a , and secured to the flanges thereof.

I claim herein as my invention—

1. A rolled-metal column, pilaster, or girder composed of a front plate having a hollow-backed rectangular tongue, face, or rib, with a flange on each side thereof, a pair of channel side plates, each connected by a flange on one of its sides to the flanges of the front plate, and a back plate connected to the opposite side of the said plates, substantially as set forth.

2. The combination, in a rolled-metal pilaster, of a flanged front plate, channel side plates, a back plate, and a base and capital, each fitting over the front plate and secured to the flanges thereof, substantially as set forth.

In testimony whereof I have hereunto set my hand.

EDWARD M. BUTZ.

Witnesses:

J. SNOWDEN BELL,
R. H. WHITTLESEY.