

(No Model.)

E. M. BUTZ.

METAL COLUMN, PILASTER, OR GIRDER.

No. 304,787.

Patented Sept. 9, 1884.

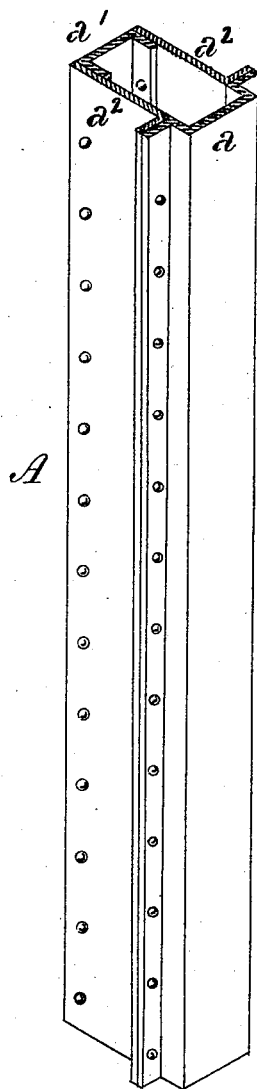


Fig. 1.

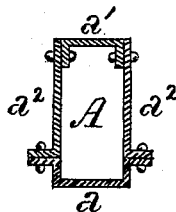


Fig. 2.

Witnesses
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EDWARD M. BUTZ, OF ALLEGHENY, PENNSYLVANIA.

METAL COLUMN, PILASTER, OR GIRDER.

SPECIFICATION forming part of Letters Patent No. 304,787, dated September 9, 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, and Fig. 2 a plane transverse section through the same.

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 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 tongue or face end plate, *a*, a channel end plate, *a'*, and a pair of side plates, *a²*. The transverse section of the tongue or face end plates is that of a body portion bent into a hollow-backed tongue, face, or rib, and having a flange at each side thereof, said flanges being in line one with the other. The channel end plate, *a'*, is 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 side plates, *a²*, are each formed of a plane

body with a perpendicular flange on one of its sides.

In the formation of the column or girder *A* the unflanged sides of the side plates, *a²*, are riveted or bolted to the flanges of the channel end plate, *a'*, and the flanges of said side plates, which are turned outwardly, are thereafter similarly united to the flanges of the tongue or face end plate, *a*. By such construction I am enabled to complete the riveting of the column without the necessity of having a recess or depression on either of its ends, and flat surfaces are provided on both its sides and ends suitable for the attachment of other members in a building-front or other construction on which it is employed.

The tongue or face of the plate *a* may be of equal width with or of less width than the channel-plate *a'*, and the perimeter of said tongue may be either of angular or of curved form, as preferred.

I claim herein as my invention—

A rolled-metal column, pilaster, or girder composed of a tongue or face end plate having side flanges, a pair of side plates having flanges connected to the flanges of the tongue or face end plate, and a channel end plate connected to the opposite sides of the side plates, substantially as set forth.

In testimony whereof I have hereunto set my hand.

EDWARD M. BUTZ.

Witnesses:

J. SNOWDEN BELL,
R. H. WHITTLESEY.