

(No Model.)

E. M. BUTZ.

METAL COLUMN, PILASTER, OR GIRDER.

No. 304,789.

Patented Sept. 9, 1884.

Fig. 3.

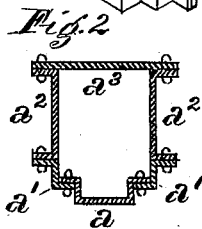
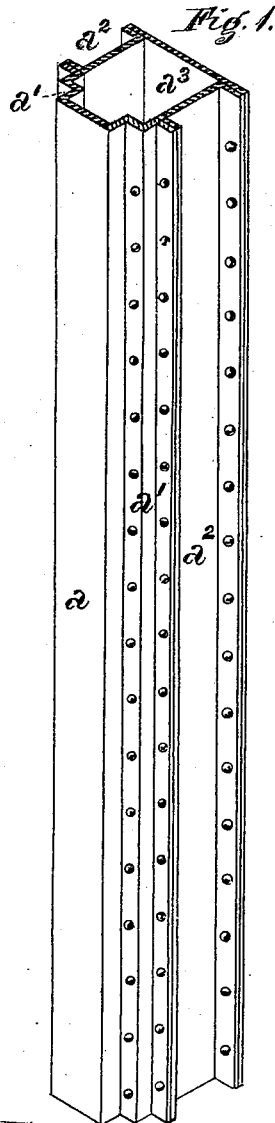
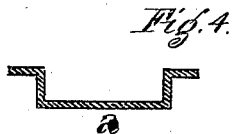
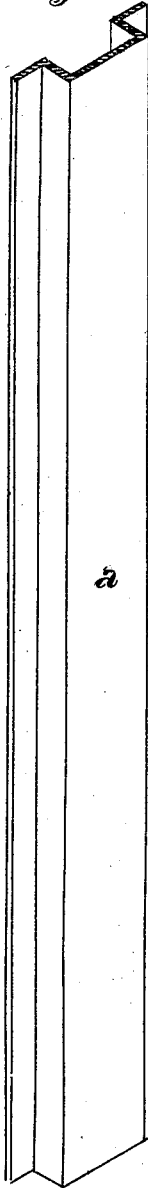
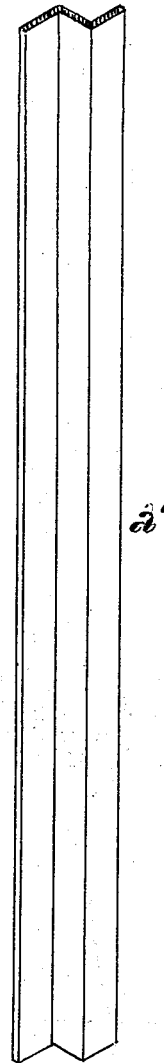


Fig. 5.



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. 304,789, 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; Fig. 2, a plane transverse section through the same; Fig. 3, a perspective section, on an enlarged scale, of the main front plate; Fig. 4, a plane transverse section through the same; Fig. 5, a perspective section, on an enlarged scale, of one of the corner plates; and Fig. 6, 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 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 main front plate, a , a pair of corner plates, a' , a pair of side plates, a'' , and a back plate, a''' . The main front plate, a , has in transverse section the form of a hollow-backed 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 application, 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''' , is plane and without flanges from end to end; and the corner plates, a' , are formed of a plane body, with flanges turned in opposite directions, respectively, projecting from its sides.

In the formation of a composite column, pilaster, or girder, the corner plates, a' , are first riveted or bolted to the flanges of the main front plate. The side plates, a'' , with their flanges turned outward, are next similarly secured to the opposite flanges of the corner plates; and, finally, the back plate, a''' , is riveted or bolted to the flanges of the side plates farthest from the corner plates.

A series of lattice bars or plates may, if desired, be substituted for the back plate, a , as a mechanical equivalent therefor, in the construction of the column.

My invention is particularly applicable to use in the construction of pilasters for wrought-metal fronts for buildings, in which case the face of the front plate may be rolled into a raised or depressed ornamentation, and a base and capital may be attached thereto. The flat sides and back afford surfaces for the suitable and convenient connection of lateral members.

I claim herein as my invention—

A rolled-metal column, pilaster, or girder composed of a main front plate having side flanges, a pair of corner plates, as described, connected to the flanges of the front plate, a pair of side plates connected to the opposite flanges of the corner plates, and a back plate connecting the opposite flanges 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.