

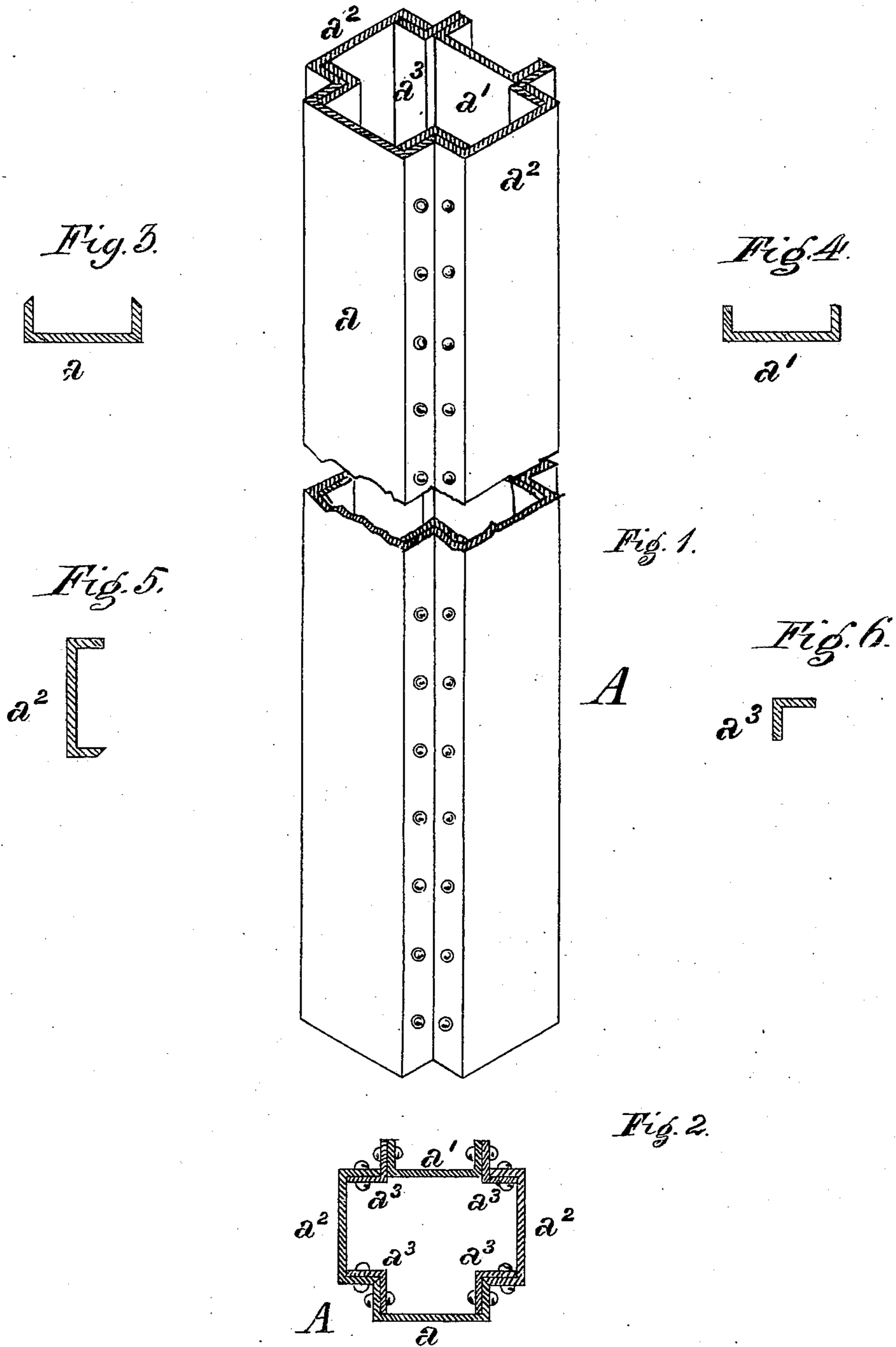
(No Model.)

E. M. BUTZ.

METAL COLUMN, PILASTER, OR GIRDER.

No. 304,788.

Patented Sept. 9, 1884.



Witnesses:
J. Snowden Bell.
E. M. Clark

Inventor:
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By George H. Christy Atty.

UNITED STATES PATENT OFFICE.

EDWARD M. BUTZ, OF ALLEGHENY, PENNSYLVANIA.

METAL COLUMN, PILASTER, OR GIRDER.

SPECIFICATION forming part of Letters Patent No. 304,788, 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 similar section through the front plate; Fig. 4, a similar section through the back plate; Fig. 5, a similar section through one of the side plates, and Fig. 6 a similar section through one of the corner plates.

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 front plate, a , a back plate, a' , two side plates, a^2 , and four corner plates, a^3 . The front, back, and side plates 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; and the corner plates, a^3 , are formed of two flanges, corresponding in width with the flanges of the front and side plates, and located at right angles one to the other.

In the formation of a column or girder, A , the flanges of the side plates, a^2 , and the front plate, a , are turned inwardly and butted together; and each of said flanges is riveted or bolted to a flange of a corner plate, a^3 , one of said corner plates being fitted inside of each flange of the front plate. The two remaining corner plates are next fitted within the

flanges of the opposite ends of the side plates, and riveted or bolted thereto. The column is completed by inserting the back plate, with its flanges turned outwardly, between the protruding flanges of the pair of corner plates last referred to, and riveting or bolting its flanges thereto.

The flanges of the front plate, a , may be mitered or beveled inwardly at an angle of forty-five degrees on their outer ends, and one flange of each of the side plates, a^2 , may be similarly mitered, as shown in Figs. 3 and 5, such construction enabling them to be formed of substantially equal length, if desired.

A column so constructed is specially adapted to use as a pilaster in the construction of wrought-metal fronts for buildings having no projecting flanges on its face or sides, and in such application presents the advantages of ample strength with the adaptability to properly receive attachments of lateral connections, and to be ornamented by the connection of a base and capital or other desired elements of architectural design.

I am aware that a post formed of three plain plates, two channel-plates, five angle-irons, and three square bars, as in the patent of L. Soulerin, No. 168,851, October 19, 1875, was not new at the date of my invention, and such construction I hereby disclaim.

I claim herein as my invention—

A rolled-metal column, pilaster, or girder composed of three channel-plates having their flanges turned inwardly, one channel-plate having its flanges turned outwardly, and four corner plates, each formed of a pair of flanges at right angles one to the other, and abutting against the flanges of the channel-plates, said members being united by bolts or rivets, substantially as set forth.

In testimony whereof I have hereunto set my hand.

EDWARD M. BUTZ.

Witnesses:

J. SNOWDEN BELL,
R. H. WHITTLESEY.