

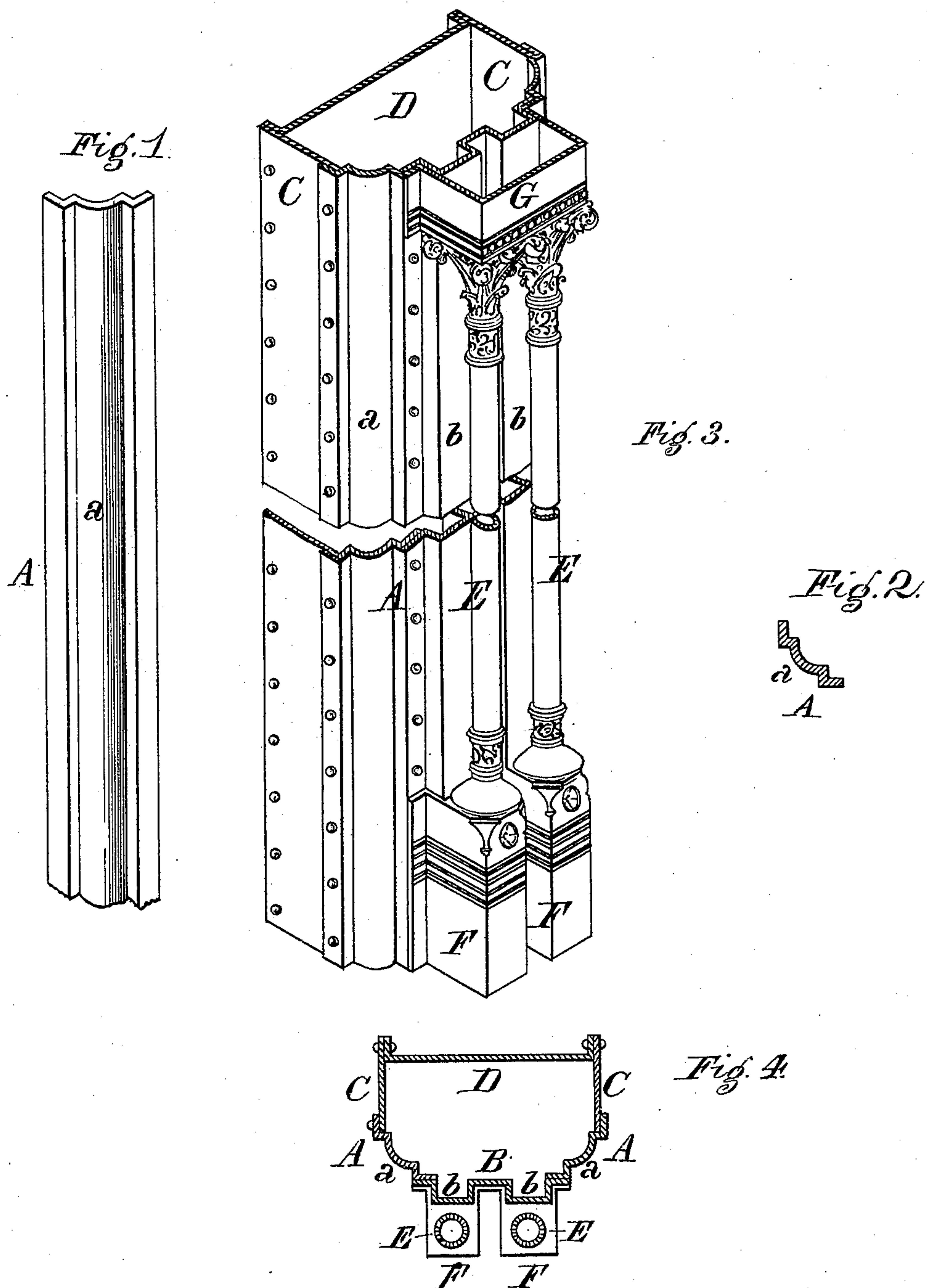
(No Model.)

E. M. BUTZ.

METAL COLUMN, PILASTER, OR GIRDER.

No. 304,792.

Patented Sept. 9, 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. 304,792, 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 view in perspective of a metal shape adapted for use in columns or girders embodying my invention; Fig. 2, a plane transverse section through the same; Fig. 3, a perspective section of a column illustrating an application of said shape, and Fig. 4 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 improvements consist in a rolled-metal corner plate or bar of shape or section as shown and described, and in a composite column, pilaster, or girder having at one or more of its angles a plate of said section, all as hereinafter fully set forth.

To carry out my invention, I form, of rolled iron or steel, a corner plate or bar, A, the transverse section of which accords substantially with that shown in the several figures—to wit, that of a curved or segmental body, *a*, connected by narrow plane portions with two side flanges at right angles one to the other.

In the formation of a composite column, pilaster, or girder, I provide a front plate, a pair of side plates, and a back plate, and unite them by bolting or riveting, interposing a corner plate, A, as described, between the front plate and one or both of the side plates, as preferred.

As illustrated in Figs. 3 and 4, the front plate, B, is composed of a pair of hollow-backed projecting tongues or faces, *b*, con-

nected by an intermediate flat portion, and having said flanges in line with said intermediate portion, its section being substantially similar to one of the forms described and shown in an application for Letters Patent of even date herewith, marked "Case H." The front plate, B, is connected at each of its sides to a corner plate, A, above described, and said corner plates are in turn connected to a pair of plane side plates, C, which are united at their rear ends by a channel-back plate, D.

My invention is particularly applicable to use in the construction of pilasters for wrought-metal fronts for buildings, in which case I combine with the pilaster a tubular shaft, E, supported at its ends by a base, F, and a capital, G, connected to the front plate, B, at its lower and upper ends, respectively.

I claim herein as my invention—

1. A structural rolled-metal corner plate, of shape or section as described, adapted to serve as a member of a column, pilaster, or girder, said plate having the form of a curved or segmental body connected by narrow plane portions with two side flanges at right angles one to the other, substantially as set forth.

2. A composite column, pilaster, or girder formed of a series of rolled-metal plates united at their edges, and having upon one or more of its angles a corner plate of shape or section substantially as herein described and shown.

3. The combination, in a rolled-metal pilaster, of a front plate, a back and side plates, one or more corner plates, as described, and a tubular shaft supported by a base and capital connected to the front plate, substantially as set forth.

In testimony whereof I have hereunto set my hand.

EDWARD M. BUTZ.

Witnesses:

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