

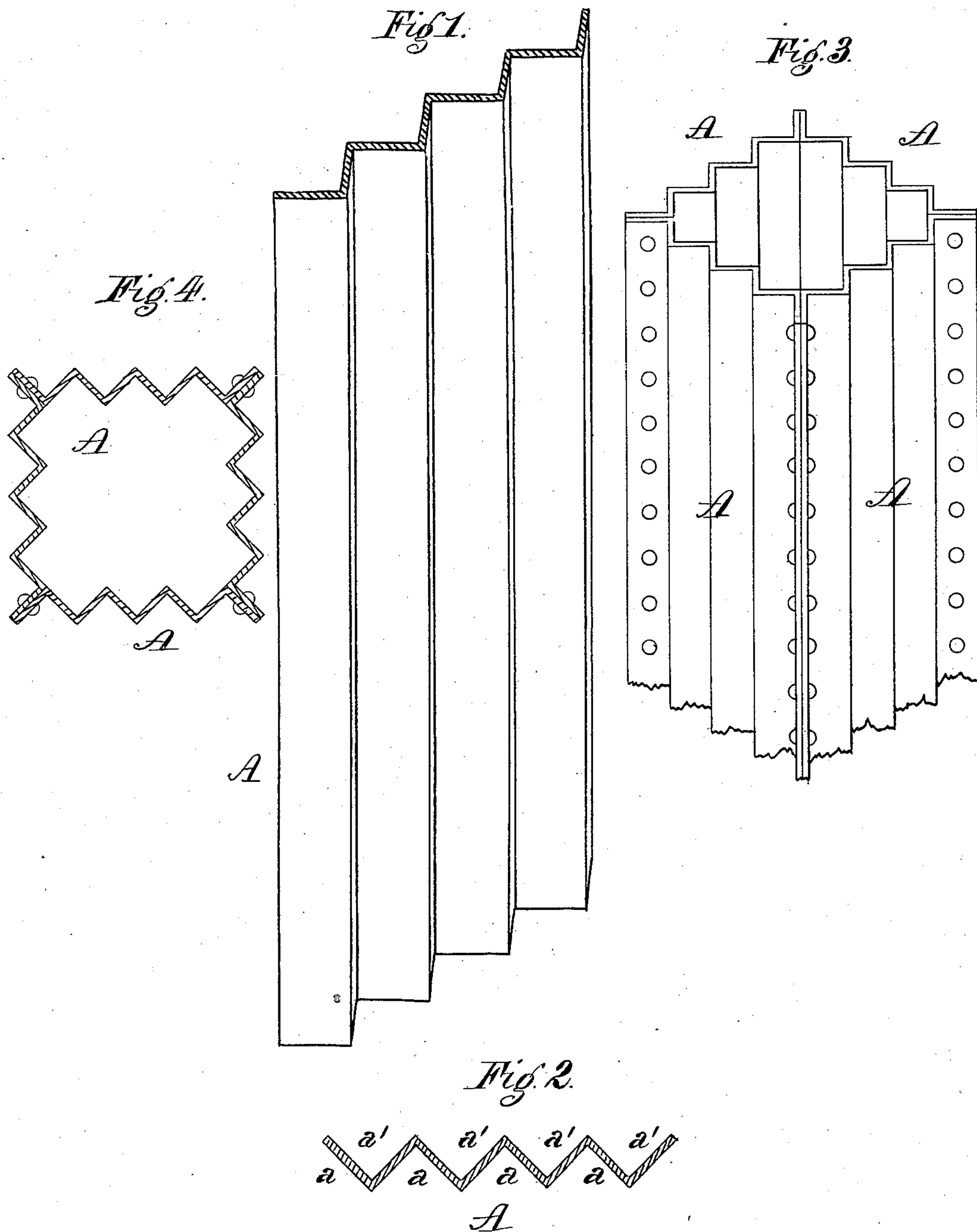
(No Model.)

E. M. BUTZ.

STRUCTURAL SHAPE FOR COLUMNS, PILASTERS, &c.

No. 308,825.

Patented Dec. 2, 1884.



Witnesses.
J. Snowden Bell.
L. M. Clark.

Edward M. Butz, *Inventor*.
By George H. Christy, *Atty.*

UNITED STATES PATENT OFFICE.

EDWARD M. BUTZ, OF ALLEGHENY, PENNSYLVANIA.

STRUCTURAL SHAPE FOR COLUMNS, PILASTERS, &c.

SPECIFICATION forming part of Letters Patent No. 308,825, 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 Structural Shapes for Columns, Pilasters, Girders, &c.; 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 plate or bar adapted for use in columns or girders embodying my invention; Fig. 2, a transverse section through the same; Fig. 3, a view in perspective of a column illustrating an application of the same, and Fig. 4 a transverse section through said column.

My invention relates to the construction of rolled-metal columns, pilasters, or girders for buildings, bridges, and other structural uses; and my improvements consist in a composite pilaster, column, or girder having one or more of its webs formed of a plate of section as described, all as hereinafter fully set forth.

To carry out my invention I form, of rolled iron or steel, a plate or bar, A, the transverse section of which accords substantially with that shown in the several figures—to wit, that of a series of alternately oppositely-inclined planes, a and a' , united at opposite sides one to the other, so as to form a continuous series of V's or double inclines connected at their tops, and of greater or less obliquity on their sides, as desired.

In the construction of a composite column, pilaster, or girder I take one or more shapes

A of section as described, and unite it or them by rivets or bolts to one or more rolled plates, which may be of similar or of any other section desired. A column composed of four similar shapes A, united at their edges, is shown in Figs. 3 and 4, and it will be obvious that by combining a shape A with one or more shapes of different section the transverse form and dimensions of the columns may be varied within a wide range, as may be desired or required.

My invention is of special applicability in the construction of pilasters for wrought-metal fronts for buildings, as combining strength with architectural ornamentation, and, in such applications, the plate A is located upon the front of the pilaster, and is preferably combined with plates of such section as to present flat or flattened faces on the sides and rear thereof—as, for example, one or more channel-plates—presenting flanges suitably inclined to abut against the outer inclines of the shape A, and having either plain or projecting faces, at the option of the constructor.

I claim herein as my invention—

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

In testimony whereof I have hereunto set my hand.

EDWARD M. BUTZ.

Witnesses:

J. SNOWDEN BELL,
R. H. WHITTLESEY.