

M. A. FOULHY.
COLUMN.
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1,335,104.

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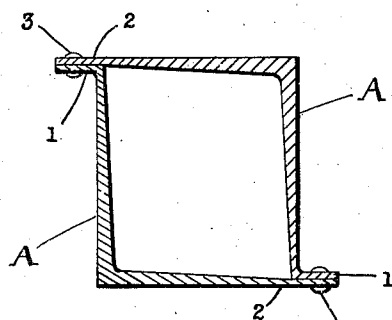


Fig. 1.

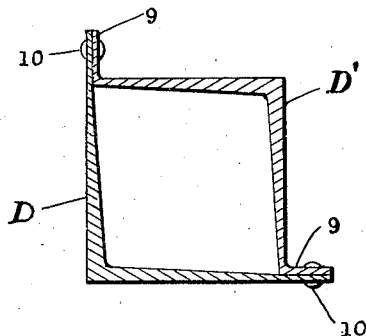


Fig. 2.

WITNESS

Howard P. King
Paul H. Franke

INVENTOR

Michael A. Foulhy

BY

H. M. Muehle

ATTORNEY

UNITED STATES PATENT OFFICE.

MICHAEL A. FOUHY, OF NEW YORK, N. Y.

COLUMN.

1,335,104.

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To all whom it may concern:

Be it known that I, MICHAEL A. FOUHY, a citizen of the United States of America, and a resident of the borough of Bronx, county of Bronx, city and State of New York, have invented certain new and useful Improvements in Columns, of which the following is a specification.

My invention relates to improvements in built up hollow columns or pillars and like structural elements, and comprises improved constructions whereby two rows only of rivets or other fastenings are required for a four-sided column or structural element. My invention also comprises members of peculiar and novel cross-section, adapted for use in the forming of the built-up column hereinafter described, and adapted to be produced readily by rolling or pressing operations of a simple character.

The objects of my invention are to simplify the construction of, and reduce the cost of, built-up columns; to that end, to provide a hollow column consisting of shapes adapted to be produced easily by ordinary rolling operations; which column shall have flat faces on all sides, all of which faces shall be equally accessible for the attachment thereto of beams, braces and other structural elements; to produce a column having the above advantages, and which shall be composed of two members only, capable of being secured together by two rows only of rivets or other fastenings.

I will now proceed to describe my invention with reference to the accompanying drawings, which show cross-sections of built-up columns embodying my invention, and will then point out the novel features in claims.

In said drawings:

Referring first to Figure 1: The form of column shown in this figure is composed of two rolled shapes A, of the general form of angle irons, except that one side of each angle iron is provided with a right angled extension 1 adapted to fit against the inner face of the complementary side 2 of the other angle iron; rivets 3 uniting the two angle irons.

It is also possible to consider these members A as being, not angle irons, but Z irons,

wherein one leg of the Z is much shorter than the other. Of course the construction is the same, however the elements of that structure may be regarded.

In the construction shown in Fig. 2, the column is composed of two angle irons D and D' of which D is a plain angle iron, the sides of which are shown as having some taper, while D' is an angle iron similarly tapered and provided at the ends of the sides of the angle with out-turned 90-degree flanges 9; such out-turned flanges being secured to the sides of angle iron D by means of rivets 10.

In the drawings, the members A, D and D', are shown as having sides, the inner and outer faces of which are at a considerable angle one to another; that is to say, the sections have considerable taper. Thickening of the sections at or near the bases of the angles, such as results from giving the sections such taper, balances what otherwise would be an eccentrically-placed area of section; that is to say, the added metal is introduced on the side or sides of the column opposite the flanges 1 and 9, to counterbalance the area of the said flanges, thereby increasing the "least radius of gyration" of the column. However, notwithstanding this, and the additional fact that certain methods of rolling shapes require, or are facilitated by, the said tapered form, I do not limit myself to the said tapered form of construction, because it may be found preferable to sacrifice the above advantages in order to make easier certain shop practices; that is to say, a uniform thickness of metal in the rolled shapes may in some cases be desirable.

What I claim is:

1. A hollow metal column composed of two angle irons, at least one of which has at the end of one of its legs an out-turned flange substantially at right angles to said leg and abutting against a leg face of the other member, and fastenings extending through such abutting faces of said two members and securing them together.

2. A structural element comprising an angle bar each leg of which is provided at its extremity with an out-turned flange substantially at right angles to said leg and

of a breadth materially less than the breadth of either leg of the angle.

3. A structural element comprising an angle bar having tapering sides, at least
5 one of the sides or legs of said angle bar having an out-turned flange substantially at right angles to said leg.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

MICHAEL A. FOUHY.

Witnesses:

H. M. MARBLE,
PAUL H. FRANKE.