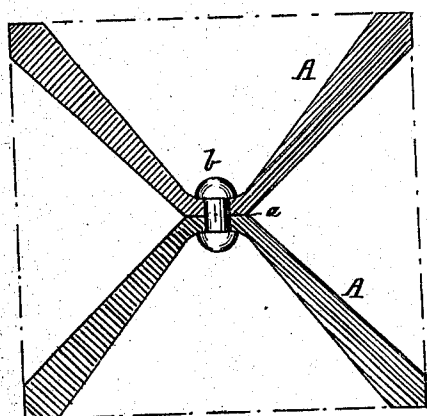


G. B. DAVIDS.
Iron Columns.

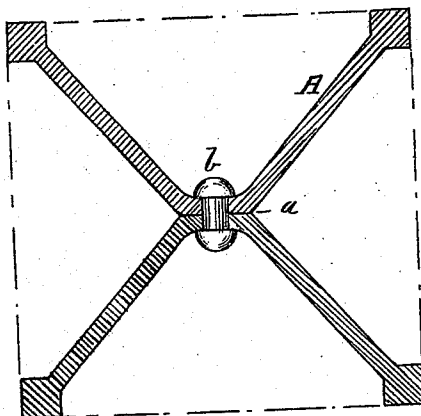
Patented Jan. 12, 1875.

No. 158,689.

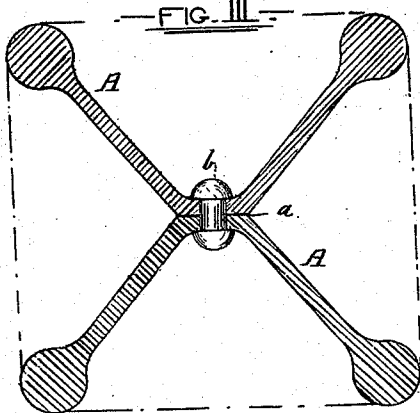
-FIG. I-



-FIG. II-



-FIG. III-



WITNESSES:

Charles Krause.

Albert P. Davids.

INVENTOR:

Garret B. Davids,

per Geo. H. Howard
atty

UNITED STATES PATENT OFFICE.

GARRET B. DAVIDS, OF BALTIMORE, MARYLAND, ASSIGNOR TO HIMSELF
AND TALBOTT DENMEAD, OF SAME PLACE.

IMPROVEMENT IN IRON COLUMNS.

Specification forming part of Letters Patent No. **158,689**, dated January 12, 1875; application filed
February 16, 1872.

To all whom it may concern:

Be it known that I, GARRET B. DAVIDS, of the city and county of Baltimore and State of Maryland, have invented certain Improvements in Rolled-Iron Posts and Columns to be used in bridge-construction and architectural and building purposes, of which the following is a specification; and I do hereby declare that the same is a full, clear, and exact description of my said invention, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention relates to a post or column in two parts, each rolled to a shape resembling that of the well-known angle-iron, excepting that the two sides of the angle do not meet, but terminate at a flat surface, which is made the point of connection between the two parts of the column.

Further modifications in the shape of the irons are shown in the several figures of the drawing annexed.

Figure 1 represents a cross-section of my invention. Figs. 2 and 3 exhibit modifications in the shape of the same.

Similar letters indicate similar parts.

A A are the two parts of the column, which are held together by rivets *b*, placed at a suitable distance apart. The parts *a* are flat surfaces, and form the points of attachment. As represented in the respective figures, the outer ends of the angles have a greater area of section than the parts *a*, where they join, increasing the lateral stiffness of the column.

Figs. 2 and 3 represent other forms to which the iron may be rolled, my invention admitting of variety in the shape of the angles without involving change in the construction or function of the column.

It will be seen by reference to the dotted lines drawn around the respective figures that a cross-section of the column is contained

within the sides of a square. This formation of column presents an area which may be increased according to the variation in shape of the angles without enlarging proportionally the exterior dimensions of the column.

This post is constructed of rolled iron, of a shape that, in cost per pound, is to circular or polygonal iron in the ratio of four to five; and having in view the fact that in it there is but one surface to rivet up, its cheapness in manufacture as compared with the round column will be in the proportion of one to four, since, in the latter column, when composed of four segments of a circle, there are four rows of rivets in the octagonal and hexagonal columns, there must be either four or two rows of rivets; and the cheapness of my column in manufacturing, as compared with them, cannot, therefore, be in less proportion than as two to one.

It has never been contended that a number of vertical seams of rivets add materially to the crushing-strength of a column, and it is evident that the number of rivets required to give full strength to my column can be placed at the one point of juncture, *a*.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent, is—

1. A channel-bar, having the straight central portion and inclined portion with the thickened edges formed entirely by rolling, substantially as shown and described.

2. A column formed of two of the herein-described rolled channel-bars, joined back to back by a single line of rivets or bolts, as herein shown and described.

GARRET B. DAVIDS.

Witnesses:

GEO. H. HOWARD,
ROBERT W. HAYS.