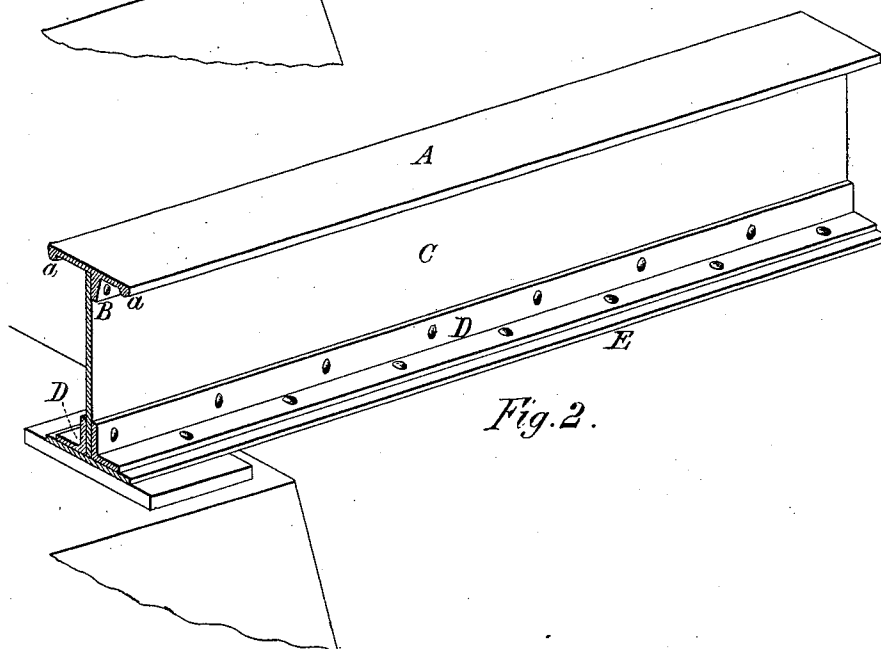
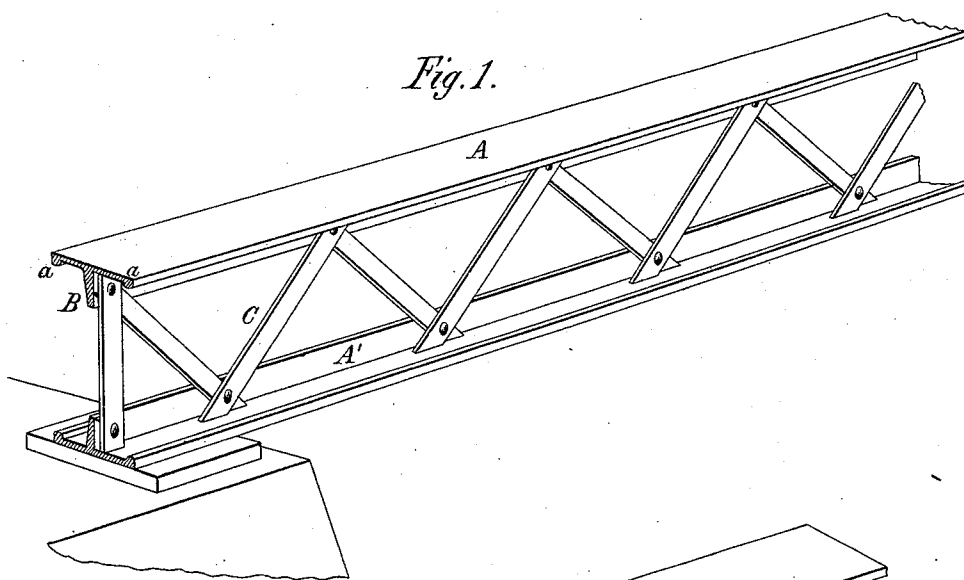


D. HAMMOND.  
WROUGHT-IRON GIRDER.

No. 184,522.

Patented Nov. 21, 1876.



Ruth H. Abbott  
Andrew Schoffin } Witnesses.

David Hammond, Inventor.  
by J. O. Abbott, Attorney.

# UNITED STATES PATENT OFFICE.

DAVID HAMMOND, OF CANTON, OHIO, ASSIGNOR TO WROUGHT IRON  
BRIDGE COMPANY, OF SAME PLACE.

## IMPROVEMENT IN WROUGHT-IRON GIRDERS.

Specification forming part of Letters Patent No. 184,522, dated November 21, 1876; application filed  
August 19, 1876.

*To all whom it may concern:*

Be it known that I, DAVID HAMMOND, of Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Wrought-Iron Girders; and that the following is a full, clear, and exact specification thereof, which will enable others skilled in the art to make and use the said invention.

My invention consists in the construction of a wrought-iron girder composed of a T-bar, upper head made with ribs on its under edges, and of a plate or lattice-web with lower head of T-bar, angles, or angles and plate, as is hereinafter more fully shown.

In the accompanying drawing, Figure 1 is a view of girder made with lattice-web and T-bar, upper and lower heads; and Fig. 2 is a view of girder made with T-bar, upper head, plate, web, and angle, and plate lower head.

The head A consists of a T-bar made with leg B, and having its head flat on top, and provided with ribs *a a* on its under edges. The leg B can be placed at one side of the center of the head, to secure a symmetrical appearance, if desired. The head, being made flat on top, allows the addition of cover-plates when desired, for additional section at the center or along the whole length of the head. The web C of plate or lattice-bar is riveted to the

leg B of the upper head A, and the lower head of the girder can be made of a second T-bar, A', or of two angles, D D, with a plate, E, if desired, for extra section, as shown.

The advantages of this construction will be evident on considering that the upper head of the girder acts under compression, and when the girder is loaded this head has a tendency to give way by bending sidewise. Consequently, by making such head wide and in one solid piece, and then concentrating the metal in the ribs on the edges of the head, where it has the greatest effect to prevent crushing or cockling the head, the same amount of head-section will make a much stronger girder than when used in the ordinary I-beam or angle-bar form of head.

What I claim as new, and desire to secure by Letters Patent, is—

A wrought-iron girder having an upper T-head made with flat top and ribs on its under edges, in combination with a plate or lattice-web and T or angle lower head, substantially as and for the purpose specified.

As evidence of the foregoing witness my hand this 7th day of August, A. D. 1876.

DAVID HAMMOND.

Witnesses:

WM. BRITTON,  
JOB ABBOTT.