

(No Model.)

P. L. HUNT.
BRIDGE.

No. 549,643.

Patented Nov. 12, 1895.

Fig. 1.

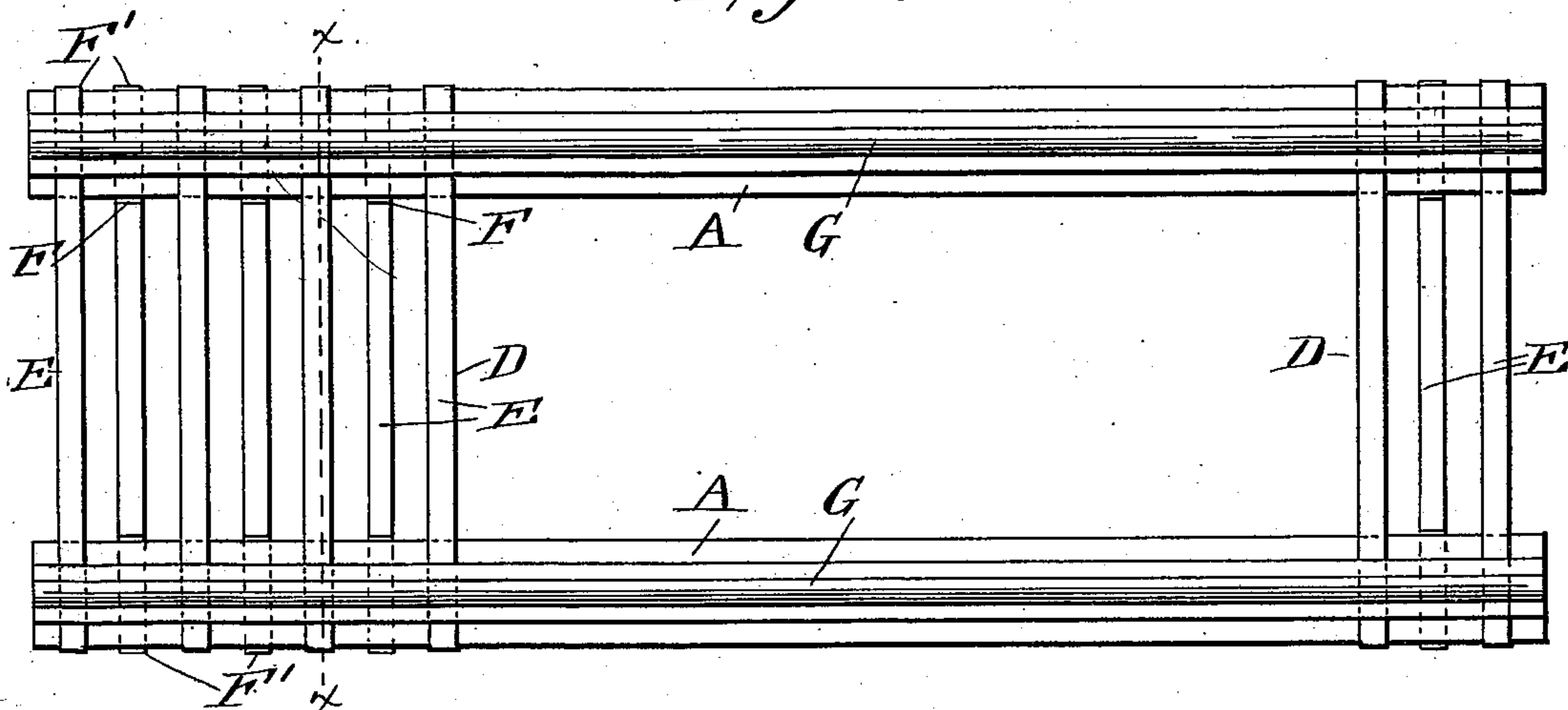


Fig. 2.

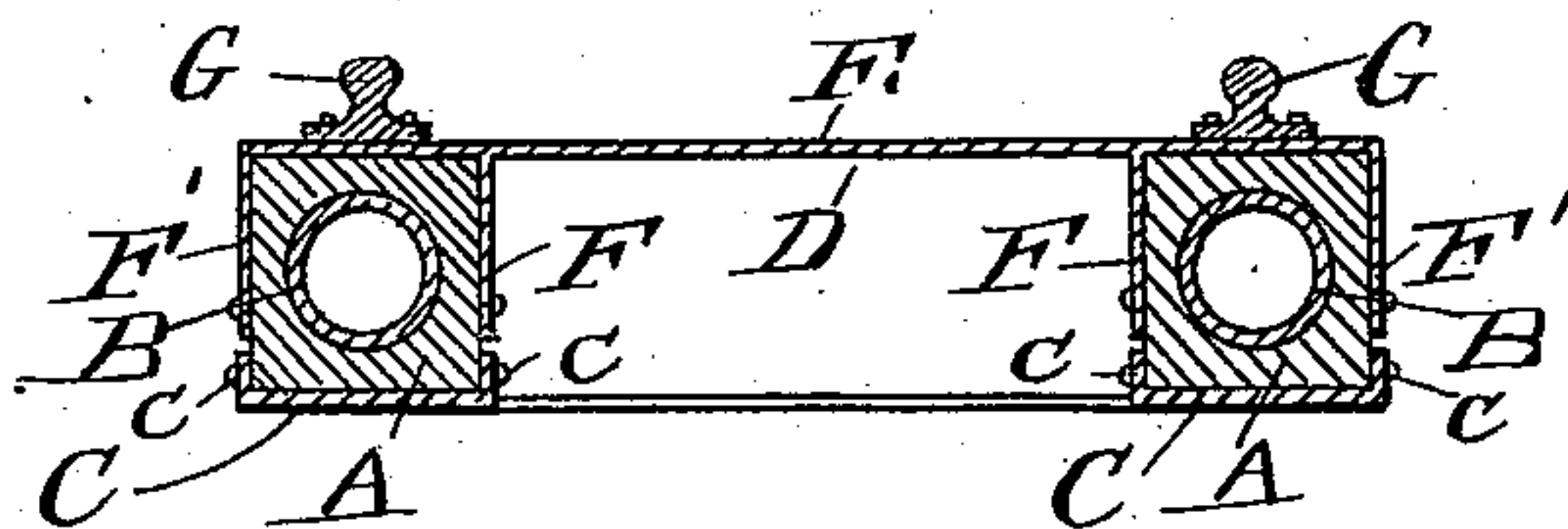
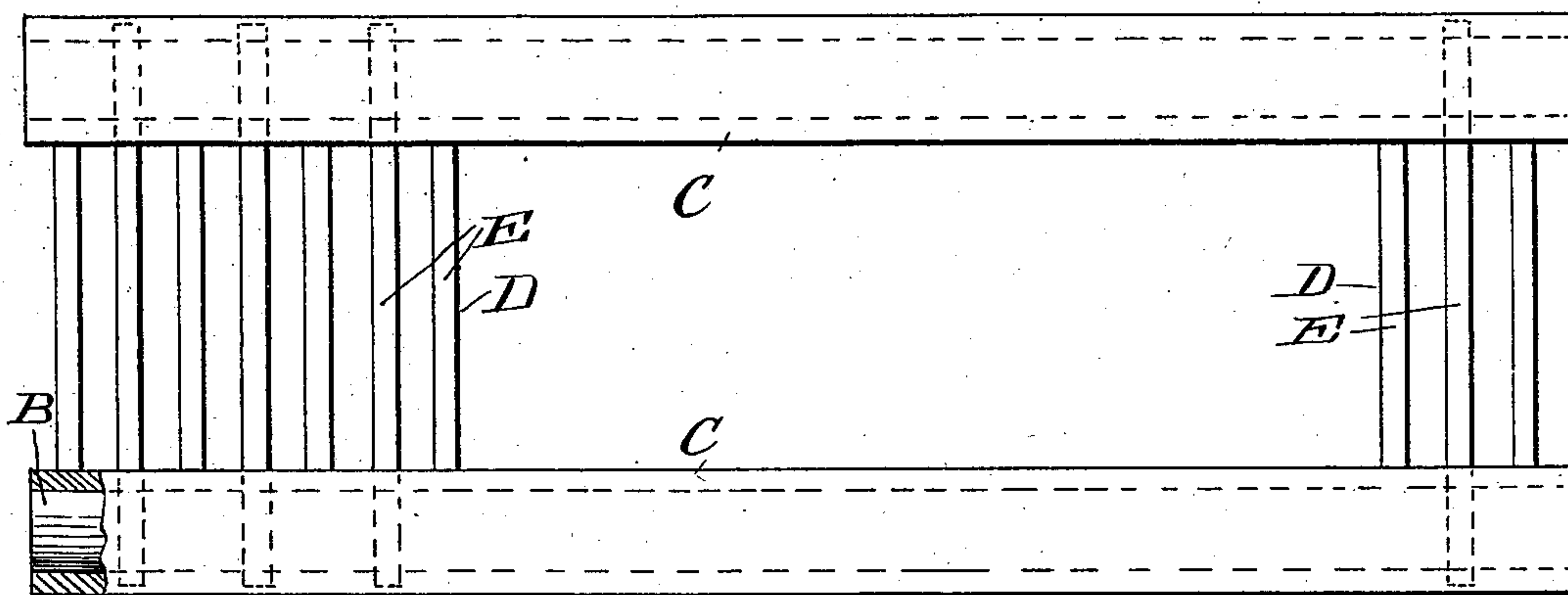


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

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BRIDGE.

SPECIFICATION forming part of Letters Patent No. 549,643, dated November 12, 1895.

Application filed June 15, 1895. Serial No. 552,954. (No model.)

To all whom it may concern:

Be it known that I, PLATT L. HUNT, a citizen of the United States, residing at Litchfield, in the county of Bradford and State of Pennsylvania, have invented certain new and useful Improvements in Bridges; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in bridges, and has for its object more especially to improve the construction of the longitudinal girders or beams of wooden bridges, railroad-crossings, &c., with a view toward increasing their strength, lightness, and cheapness.

This invention is particularly applicable for use on elevated railroads over streets in cities and towns, although it may be used on any other style of bridge; and it consists in boring the timbers or longitudinal girders lengthwise through their centers and inserting a steel, iron, or other metallic tube therein and securing steel bars to the bottom of said girders, and then binding them together by means of suitable cross-ties, as more fully hereinafter described and claimed.

Referring to the drawings, Figure 1 is a top plan view; Fig. 2, a cross-section on the line *xx* of Fig. 1; Fig. 3, a bottom plan view.

In the accompanying drawings, in which like letters of reference indicate corresponding parts in all the figures, A represents the longitudinal girders of my improved bridge, made of wood or other material; B, the steel or other metallic tubes therein; C, the metallic bars provided with flanges *c*, secured to the bottom of each of said longitudinal girders by means of spikes or other suitable means.

D are the metal cross-ties for binding the girders together, which consist of a central portion E and depending lips or straps F F'.

These cross-ties are preferably put on the girders with every other tie secured to the bottom of the girders with its lips extending upward, while the intervening tie is put on the top of the girders and with its lips extending downward. The purpose of this is to more effectually brace and hold the bridge together.

G are the railroad-rails.

Heretofore in constructing bridges with wooden beams or girders, and especially small railroad-bridges, they have been necessarily weak and liable to be broken when any unusual strain has been put upon them; but by strengthening them by using the steel tubes of my invention this weakness has been obviated and the girders rendered strong and not liable to be broken.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a bridge the girders provided with metallic strengthening tubes therein, in combination with the cross ties secured alternately to the top and bottom of said girders, substantially as described.

2. A girder for a bridge provided with a metallic strengthening tube therein, a metallic plate on the bottom thereof provided with flanges which embrace the sides of the girder, substantially as described.

3. In a bridge the girders provided with metallic strengthening tubes therein, and the metallic plates on the bottom of said girders, in combination with the cross ties, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

PLATT L. HUNT.

Witnesses:

C. BLIVIN,

G. S. CARPENTER.