(No Model.)

D. ATWOOD.

FASTENING FOR RAILWAY STRINGERS.

No. 399,232. Patented Mar. 12, 1889.

Fig. 1.

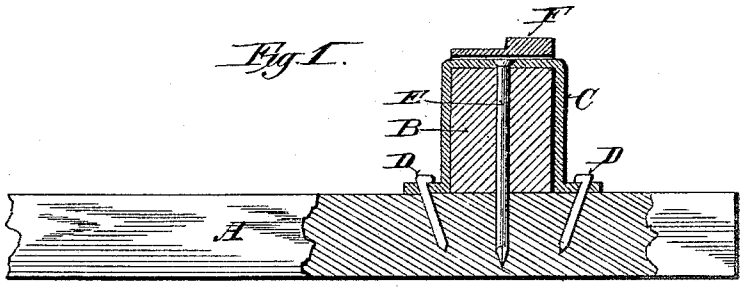
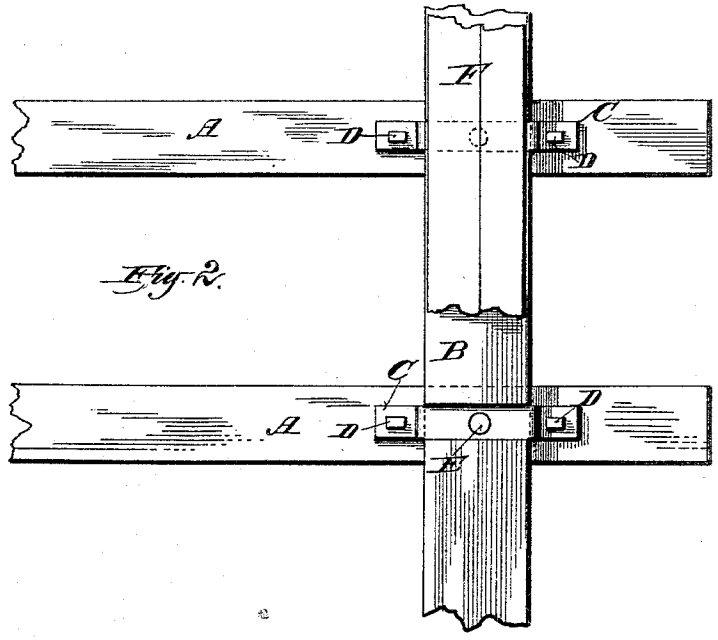


Fig. 2.



Witnesses:
E. G. Comus
Chas. L. Goss.

Inventor:
Dustin Atwood,
By
Wickham Flanders Smith Bottum & Vilas
Attorneys.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

DUSTIN ATWOOD, OF MILWAUKEE, WISCONSIN.

FASTENING FOR RAILWAY-STRINGERS.

SPECIFICATION forming part of Letters Patent No. 399,232, dated March 12, 1889.

Application filed December 11, 1888. Serial No. 293,250. (No model.)

To all whom it may concern:

Be it known that I, DUSTIN ATWOOD, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Fastenings for Railway-Stringers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of my invention is to securely fasten the stringers on which the rails are laid to the tops of the ties, so that the latter will be embedded below in the road-bed out of the way of paving, conduits for cables, &c.

It consists, essentially, of an inverted-U-shaped metallic strap, having perforations through its flanged ends, by which it is spiked, bolted, or otherwise suitably fastened to a tie on opposite sides of the stringer over which it is fitted and placed.

In the accompanying drawings like letters designate the same parts in both figures.

Figure 1 is a side elevation of a tie showing the stringer-rail and strap in vertical cross-section, and Fig. 2 is a plan view of a portion of a stringer, two of its supporting ties and fastenings, and a portion of a rail.

A A represent portions of a number of ties, on which are laid crosswise and near their ends the stringers B, a portion of one being shown in the drawings.

C C are inverted-U-shaped metallic straps, turned at the ends outwardly at right angles and perforated. They are fitted to and placed crosswise over the stringers B, into which they are sunk flush with the top faces of the stringers, and are fastened at the ends by spikes D D, driven through the perforations therein into the ties A A, on which the horizontal ends of the straps are seated.

The spikes are preferably inclined at the tops away from the stringers in driving, to prevent their being as readily pulled out or loosened, or any lateral displacement of the stringers B, as when they are driven straight. The straps C C have also at the centers, over the tops of stringers B, countersunk perforations, and long spikes E are driven through said perforations and the stringers into the ties A A underneath, as shown in Fig. 1. The heads of said spikes are driven below or flush with the tops of the straps C and stringers B, so as not to interfere with the rails F; or, instead of countersinking the perforations to receive the heads of the spikes E, I may employ flat-headed spikes and sink the straps C sufficiently into the tops of stringers B to carry the heads below the upper surface of said stringers. In this manner the stringers are rigidly fastened to the tops of the ties A A, which are thus embedded below and out of the way of the paving, and are in position to support the conduit for a cable, foundation for paving-blocks, or other superstructure.

Various modifications in the weight, size, and proportions of the straps may be made to adapt them to various places and circumstances without departing from the spirit of my invention.

I claim—

1. The combination, with the ties of a railway and stringers resting thereon, of metallic straps placed over said stringers and fastened at the ends to the ties on which they are seated, substantially as and for the purposes set forth.

2. The combination, with the stringers of a railway and cross-ties on the tops of which the stringers are supported, of inverted-U-shaped metallic straps perforated at the ends and center, and spiked or bolted through said perforations to said ties and stringers, substantially as and for the purposes set forth.

3. The combination, with the ties of a railway, of rail-supporting stringers spiked or bolted to the tops of said ties, and inverted-U-shaped straps turned outwardly at right angles at the ends, and seated upon and secured to the ties on opposite sides of said stringers, substantially as and for the purposes set forth.

4. The combination, with the ties of a railway, of rail-supporting stringers supported upon said ties, and inverted-U-shaped straps turned outwardly at the ends, seated upon and fastened on opposite sides of the stringers to the ties and sunk into the upper sides of the stringers, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

DUSTIN ATWOOD.

Witnesses:
M. E. BENSON,
CHAS. L. GOSS.