

(No Model.)

W. H. KNOWLTON.

RAILROAD TIE.

No. 312,566.

Patented Feb. 17, 1885.

Fig. 1.

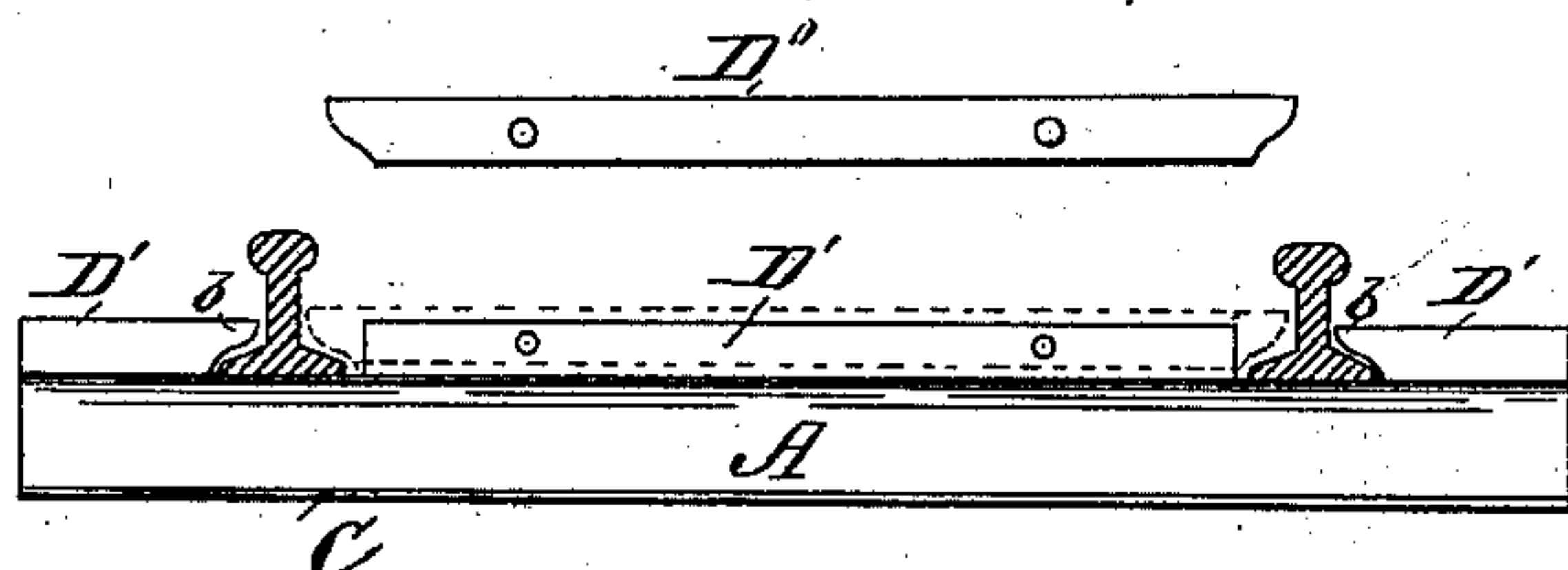


Fig. 2.

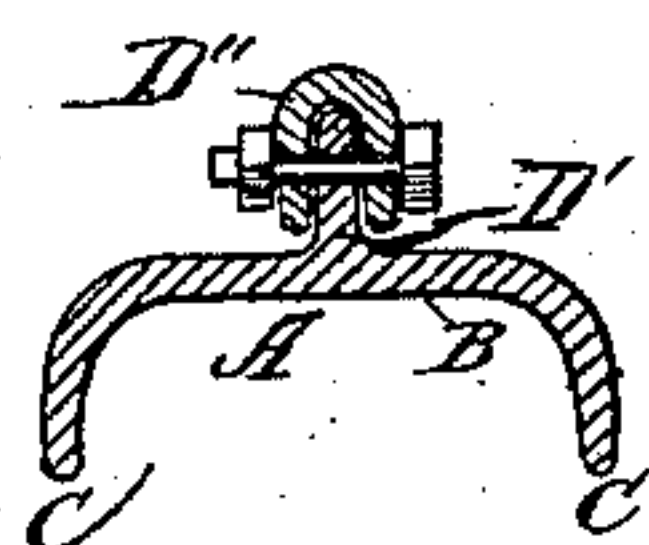


Fig. 3.

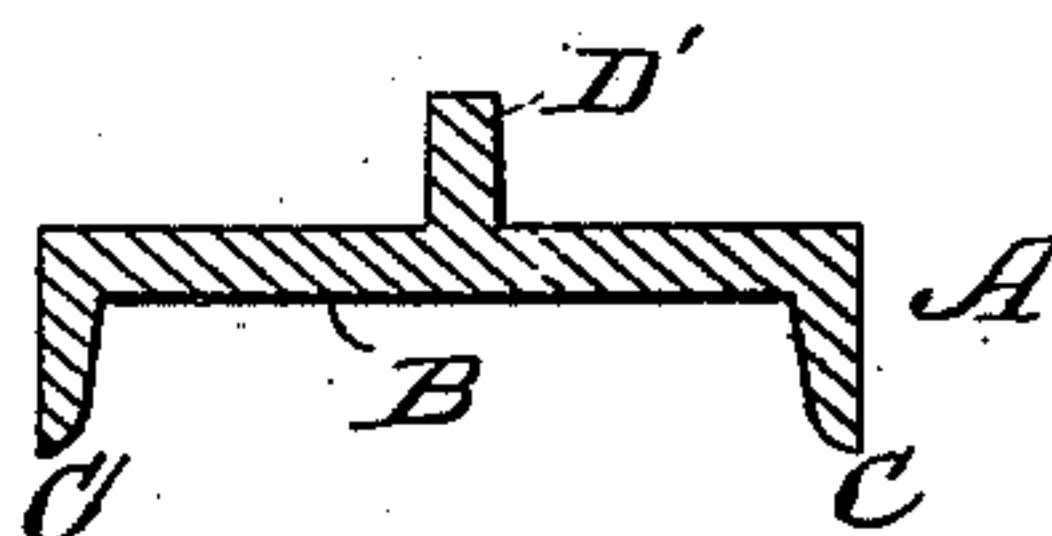


Fig. 4.

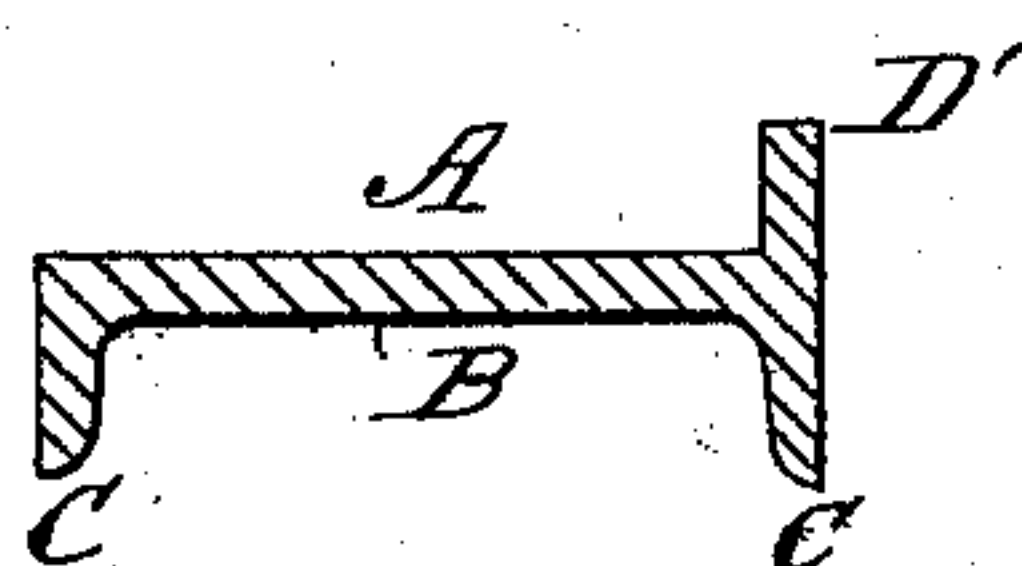


Fig. 5.

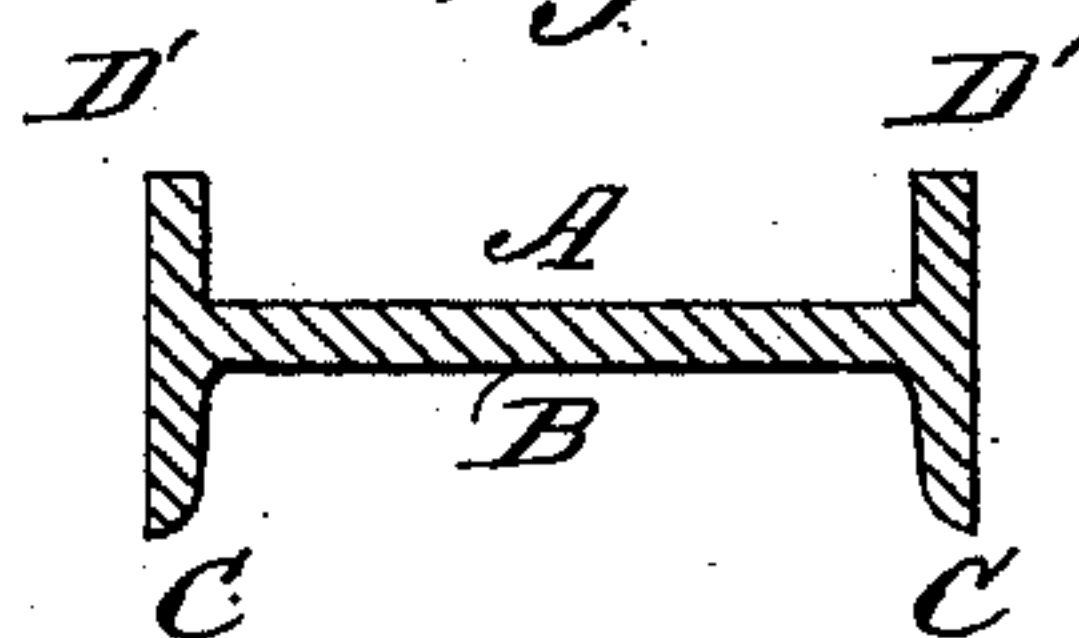


Fig. 6.

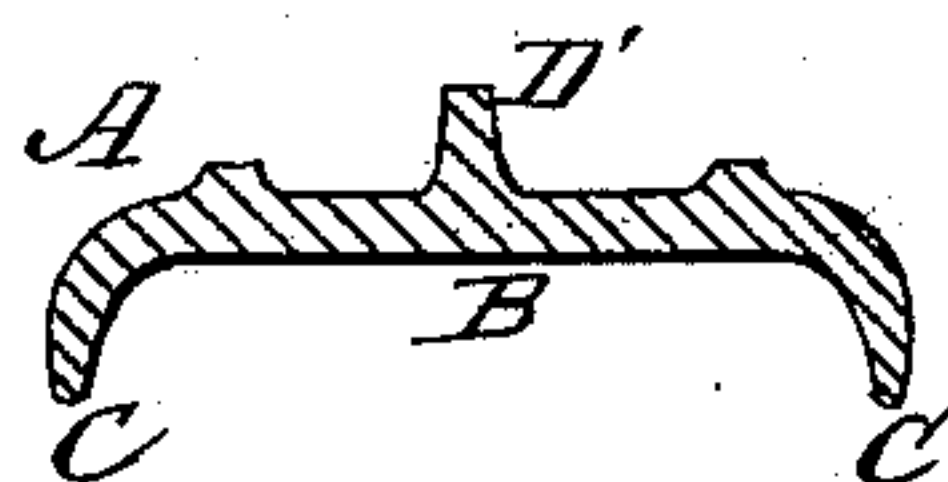
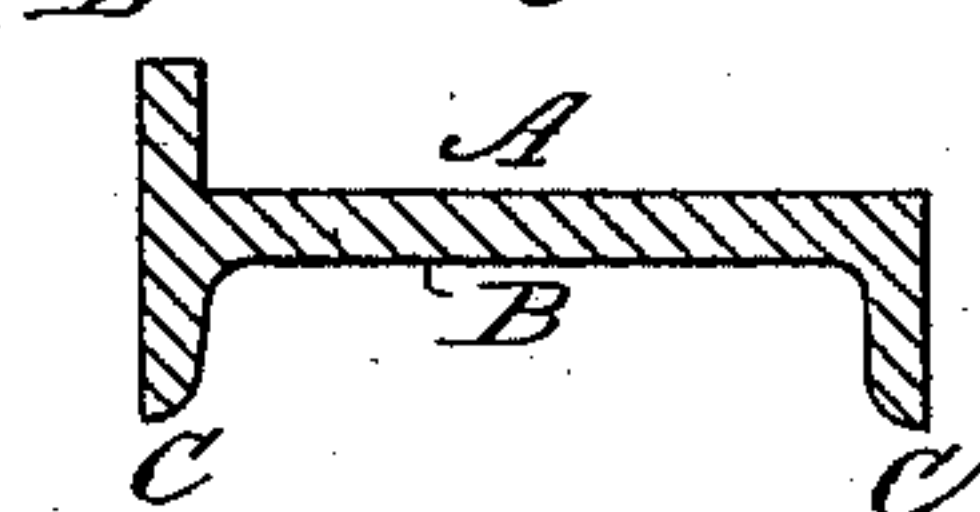


Fig. 7.



WITNESSES:

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WILLIAM HENRY KNOWLTON, OF POTTSVILLE, PENNSYLVANIA, ASSIGNOR
TO HIMSELF AND AMASA JONES, OF SAME PLACE.

RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 312,566, dated February 17, 1885.

Application filed February 27, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. KNOWLTON, of Pottsville, in the county of Schuylkill and State of Pennsylvania, have invented a new and Improved Railroad-Tie, of which the following is a full, clear, and exact description.

My invention relates to metallic ties for supporting and securing railroad-rails; and it consists in the construction and arrangement of parts, as will be hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of my improved tie, showing in dotted lines the fastening applied to the rib and a view of the fastening in full lines separate from the tie. Fig. 2 is a transverse section of the tie, rib, and fastener; and Fig. 3 to 7, inclusive, are views showing in cross-section several forms of ties capable of being employed in the manufacture of my improved tie.

A channel-bar, A, of iron or steel rolled with the channel B between flanges C, and having a central longitudinal rib, D', is employed in the manufacture of my improved railroad-tie, and while I prefer this form of bar, any of the forms shown in Figs. 3 to 7, inclusive, may be used. All of the internal and external angles of the bar A are rounded to impart strength to it and to diminish corrosion, which

might otherwise occur, especially in the inner angles of the upper surface. I cut away the longitudinal rib D', as shown in Fig. 1, and fit thereto a channel-bar, D'', whose ends are cut away to adapt them to the flange of the rail. The channel-bar D'' fits down over the rib D', as shown in the sectional view, Fig. 2, and is secured by transverse bolts passing through the bar and through the rib.

The tie may be rolled in iron, steel, or other malleable metal, or it may be cast in malleable metal or in metal capable of being rendered malleable.

Only one cut-away rib and channel-iron is necessary for a single track; but the parts will be duplicated or increased as may be necessary for double tracks and switches.

The form of the tie, as I have stated, may be considerably varied without materially altering the results, therefore I do not limit or confine my invention to the exact form shown.

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

The combination, with a channel-bar, A, having formed on it the rib D', cut away, leaving a space for the rail-flange and forming the outer points, b, of a channel-bar, D'', adapted to the rib of the bar A and to the rail-flanges, as specified.

WILLIAM HENRY KNOWLTON.

Witnesses:

FRANK LITTLE,
H. A. SCHILLING.