(No Model.)

E. L. TAYLOR.

RAILROAD TIE.

No. 286,651. Patented Oct. 16, 1883.

Fig. 1

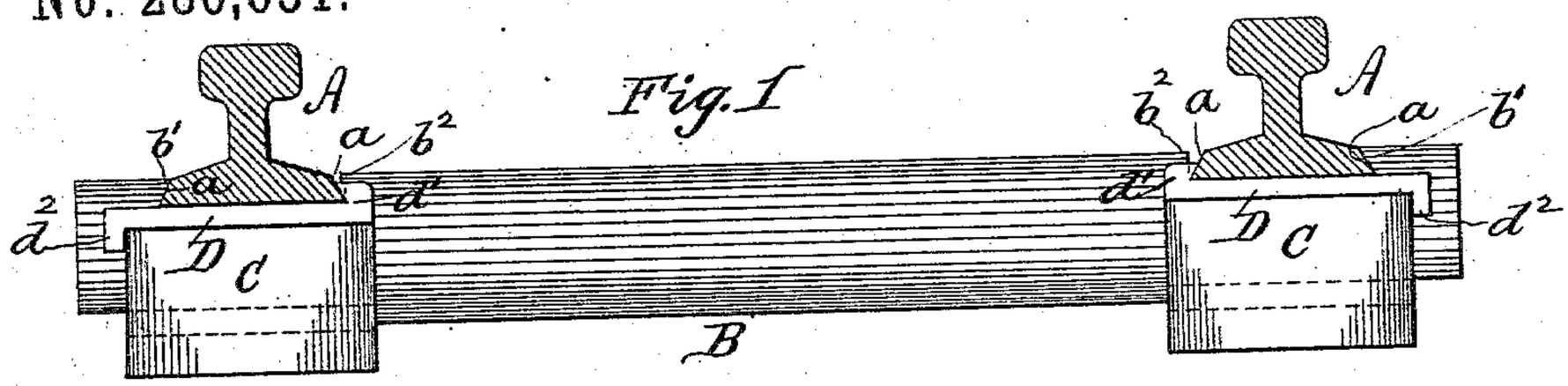


Fig. 2

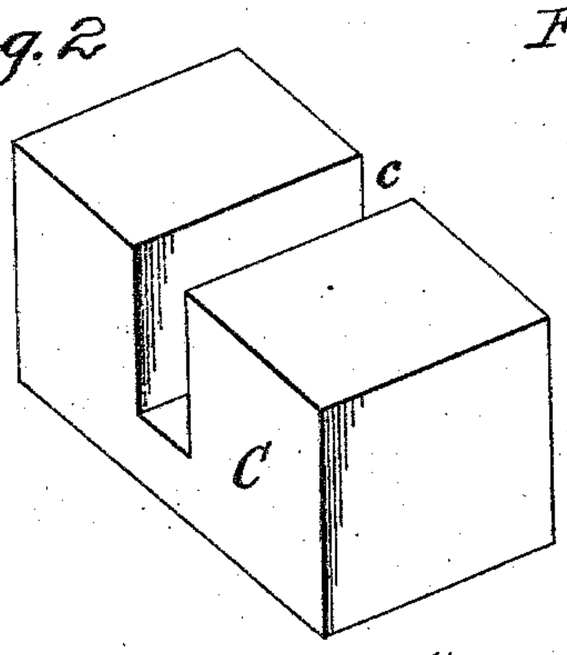


Fig. 3

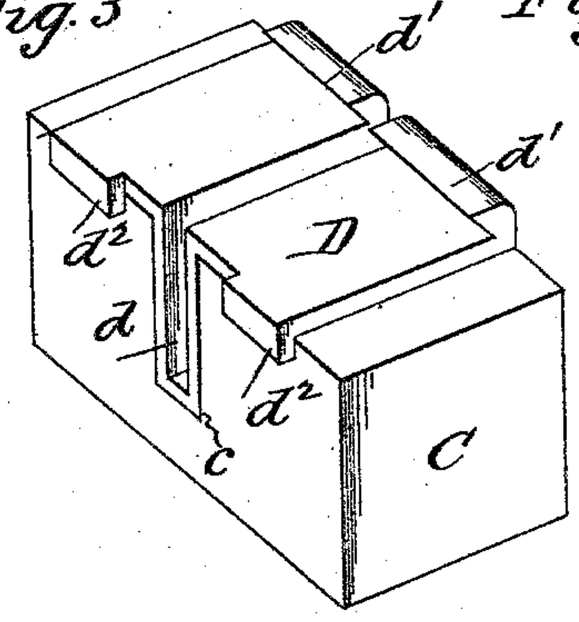
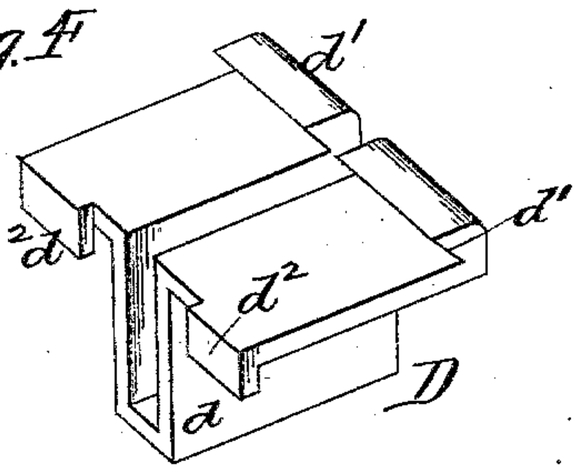


Fig. 4



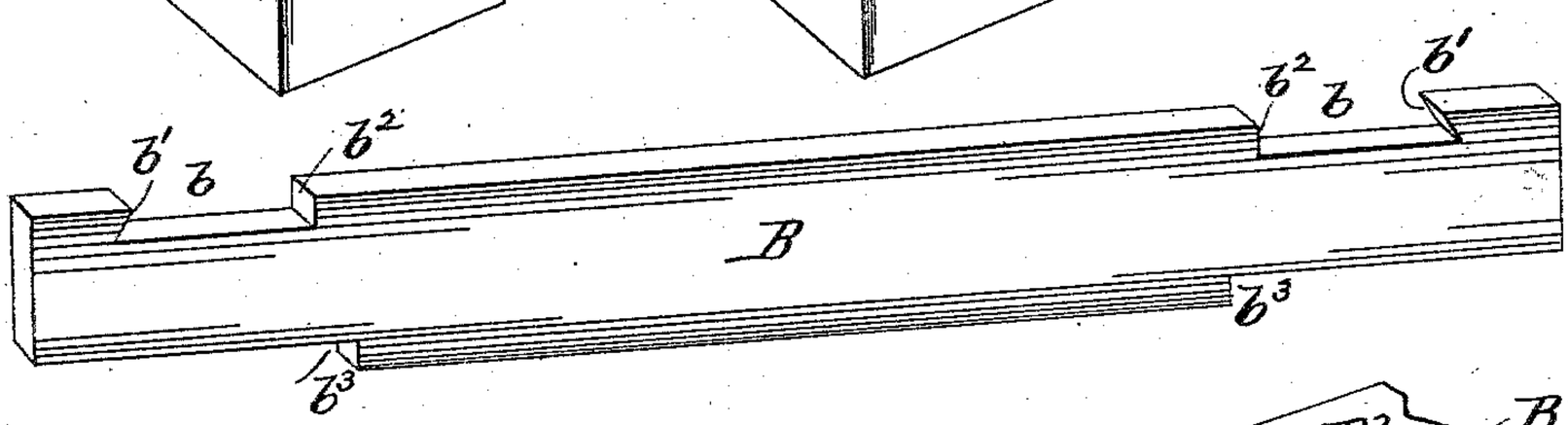


Fig. 5

Fig. 6

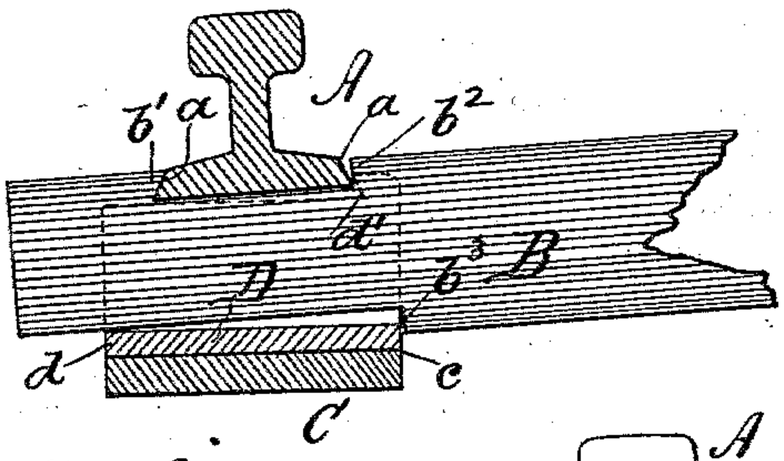


Fig. 7

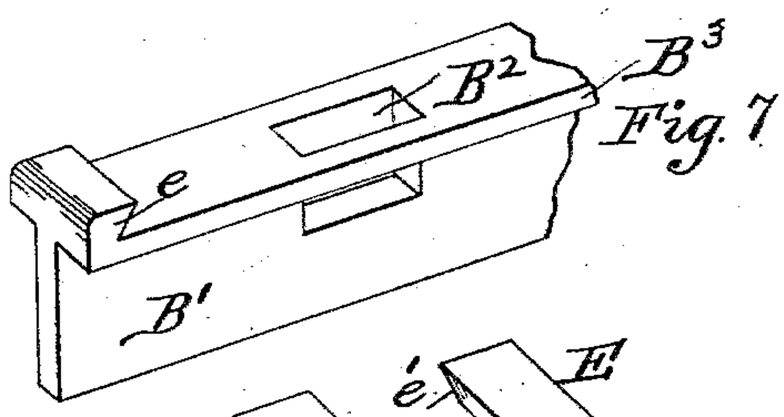


Fig. 8

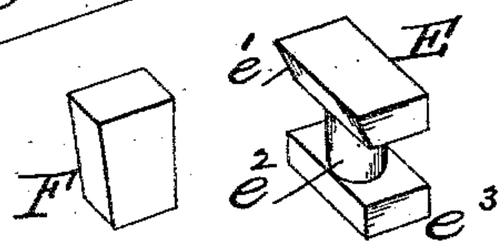
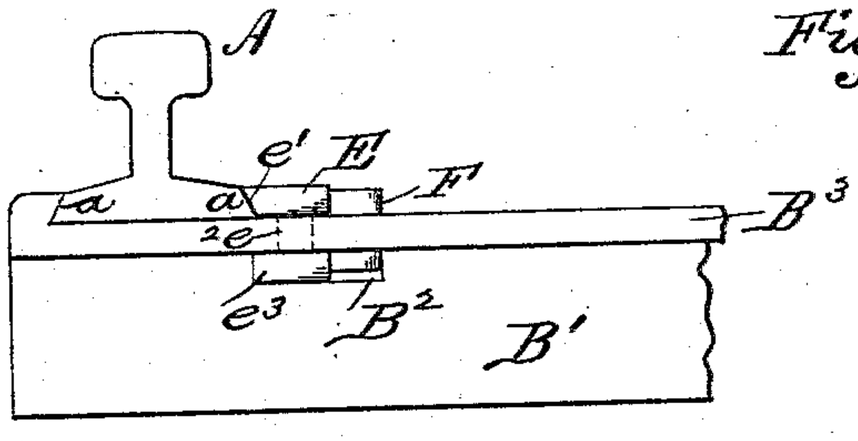


Fig. 9



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E. H. Bates

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his Attorneys

UNITED STATES PATENT OFFICE.

ENOCH L. TAYLOR, OF PHILADELPHIA, PENNSYLVANIA.

RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 286,651, dated October 16, 1883.

Application filed August 19, 1882. (No model.)

To all whom it may concern:

Be it known that I, ENOCH LEWIS TAYLOR, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and valuable Improvement in Railroad-Ties; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a cross-sectional view of my device. Figs. 2, 3, 4, 5, 7, and 8 are perspective detail views. Fig. 6 is a sectional detail view, and Fig. 9 is a detail view.

The object of my invention is to provide an iron railroad-tie in place of the present ordinary wooden tie in universal use on railroads.

The invention relates to railroad-ties; and it consists in the construction and novel arrangement of parts hereinafter fully described, and particularly pointed out in the claims appended.

This bar or tie is fastened as follows: I use as a foundation a block of wood or stone, as may be most desirable or convenient. This foundation may be either in one or two parts, and where it is a solid block it has a transverse slot or opening in the center extending to near the bottom of the block, as shown in Fig. 2 at *c;* and where I use two blocks or stones I place them far enough apart to receive the downward-projecting part of a wrought-iron chair, into the upper part of which the end of the tie is fitted, as hereinafter described. The chair has a central downward projection, C, slotted to receive the end of the tie. From the upper sides of the downward projection extend broad flat flanges or surfaces D, the lower sides of which rest on the block or blocks C, into which the downward projection is fitted, as shown in Fig. 3. The upper sides of the flange are flat, and have on the inner edge a flange, *a'*, beveled on its inner side to clamp the inner flange of the rail, the tie having a similar flange, *b'*, on its upper surface, near the outer edge, to clamp the outer flange of the rail, thus interlocking both edges of both flanges of the rail securely. After the bed for the chair is formed, I place the chair on its bed, the lower and outer edge of the chair having a downwardly-projecting flange resting on the bed. I then place the tie in position in the slot at a slight upward inclination from the outer edge of the slot. I next place the rail with its outer edge fitted in the outer beveled flange of the tie, as shown in Fig. 6 at *b'*. Then I drive the chair until the outer downward flange projects over the edge of the stone or block in which it rests, and this causes the tie to drop to its place, as shown at A A in Fig. 1, and the inner edge of the rail is then clamped by the inner beveled flange on the chair. When in this position the rail is held securely and cannot be moved or disturbed, except by raising the tie from its position, and this can only be done with tools suited to the purpose. The manner of doing this would be to introduce a lever of some kind under the end of the tie and raise it until entirely free from the bed or block on which it rested. This would force the tie in an outward direction and the rail with it, until it would be released from the flange on the inner edge of the chair which held it in position, when it can easily be removed.

I claim that the substitution of iron for wood is more durable, more safe, more cheap, and less liable to get out of order. I dispense with spikes and bolts, using the clamp method of fastening all together.

As a modification, in some localities the tie could be used without the chair. I would then use a plain or T bar, inwardly flanged on its outer edge, and having an opening or slot to receive an H-key, having a flange on its upper edge to clamp the inner edge of the rail, the said key being held to its position by a steel-spring key. The rail is placed on the tie against the outer flange, and the key and the spring key are then inserted and hold the rail in position.

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

1. The combination, with the tie having the seats *b* for the rails, of the chairs D, having the beveled inner walls, *d'*, extending upwardly, and the downwardly-projecting outer flanges, d^2, substantially as specified.

2. The combination, with a foundation piece or base, C, of a flanged chair, D, seated therein, a notched tie, B, seated in said chair, and a rail, A, seated on said tie, and secured thereto by the grip of the tie and chair when pressed down on the base, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ENOCH LEWIS TAYLOR.

Witnesses:
ALLEN H. GANGEUR,
MATT. CLIFTON.