

(No Model.)

J. W. FLYNN.

CROSS TIE.

No. 345,837.

Patented July 20, 1886.

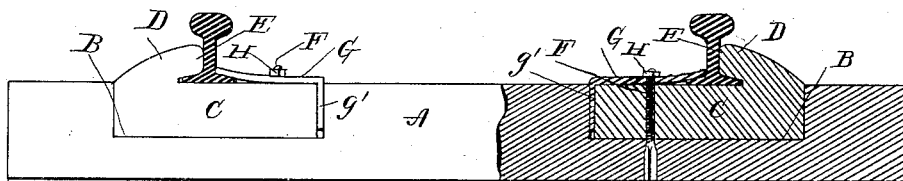


Fig. 1.

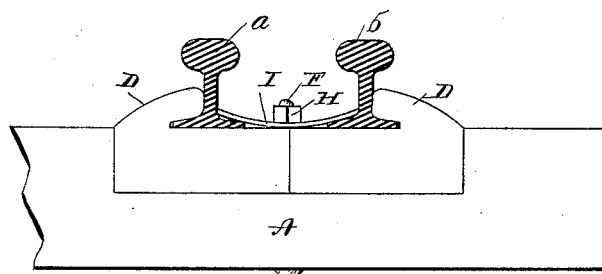


Fig. 3.

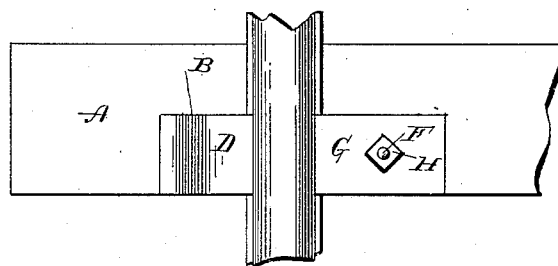


Fig. 2. Inventor
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Witnesses
James M. Hutton
Geo. Warner

UNITED STATES PATENT OFFICE.

JOHN W. FLYNN, OF BORDENTOWN, NEW JERSEY.

CROSS-TIE.

SPECIFICATION forming part of Letters Patent No. 345,837, dated July 20, 1886.

Application filed April 13, 1886. Serial No. 193,730. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. FLYNN, a citizen of the United States, residing at Bordentown, in the county of Burlington and State of New Jersey, have invented a new and useful Improvement in Cross-Ties, of which the following is a specification.

My invention relates to an improvement in railway ties and chairs; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a side elevation of my invention, partly in section. Fig. 2 is a top plan view of the same. Fig. 3 is an elevation of my invention as applied to the main rail and guard-rail of a railway-switch.

A represents a cross-tie, which may be made of wood, iron, steel, or any other preferred material, and is provided on its upper side, near its ends, at one edge, with recesses B, in which are located the chairs C. These chairs are made of cast or wrought metal, and are provided at their outer ends, on their upper sides, with projections D, having shoulders E, which bear against the outer sides of the rails, so as to prevent the latter from being moved laterally from each other.

F represents bolts, which pass through openings made in the chairs C and the tie. That portion of the shank of each bolt which passes through the tie is made rectangular, so as to prevent turning therein, and the upper ends of the bolts, which project above the upper sides of the chairs, are screw-threaded.

G represents locking-plates, which are placed on the upper side of the chairs, at the inner ends thereof, the said locking-plates having depending ends *g'*, which bear against the inner ends of the chairs, the outer ends of the said locking-plate being curved upwardly sufficiently far to enable them to clear the bottom flanges of the rails and bear against the inner sides thereof. The function of these locking-plates is to prevent the rails from moving inwardly toward each other. Openings are made in the plates G to receive the upwardly-

projecting ends of the bolts F, and nuts H are screwed on the upper ends of the said bolts and bear downwardly upon the locking-plates, thus securing the latter firmly in position, and also securing the chairs firmly in the recesses of the tie.

In Fig. 3 I illustrate my invention applied to the main rail *a* and the guard-rail *b* of a railway-switch. When thus employed, the recess in the tie is made sufficiently long to receive two of the chairs placed end to end. The rails bear against the shoulders of the said chairs, and the locking-bolt passes up through the tie between the meeting ends of the chairs and through a locking-plate, I, the ends of which are bent or curved upwardly and caused to bear against the opposing sides of the main and guard rails, as shown, thus securing the said rails very firmly in place.

Having thus described my invention, I claim—

1. The combination of the tie having the recesses B in its upper side, near the ends, the chairs secured in the said recesses and having the projections D and shoulders E bearing against the rails, and the plates G, bolted on the upper sides of the chairs, and bearing against the lower flanges of the rails on the sides opposite the shoulders E, for the purpose set forth, substantially as described.

2. The combination, with the tie having the recesses B in its upper side, near the ends, of the chairs secured in the said recesses and having the shoulders bearing against one side of the rails, and the locking-plates G, secured on the chairs and bearing against the sides of the rails opposite the shoulders of the chairs, and having the depending ends *g'* secured between one end of the chairs and the opposing end of the recesses in which the chairs are located, substantially as described.

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

JOHN W. FLYNN.

Witnesses:

JOHN SWAIN,
WM. R. FLYNN.