(No Model.)

J. PARR.

METAL CROSS TIE.

No. 260,231. Patented June 27, 1882.

Fig. 1.

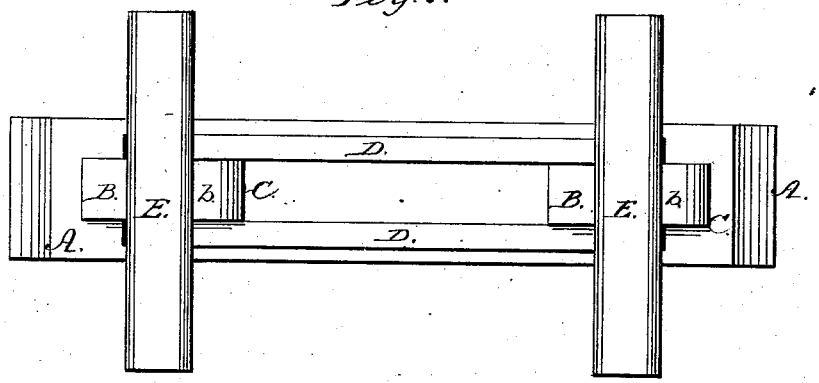


Fig. 2.

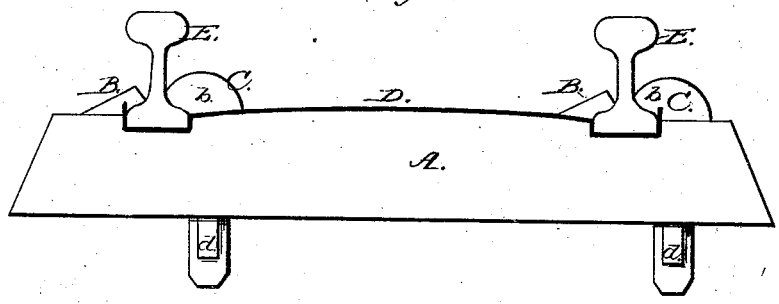
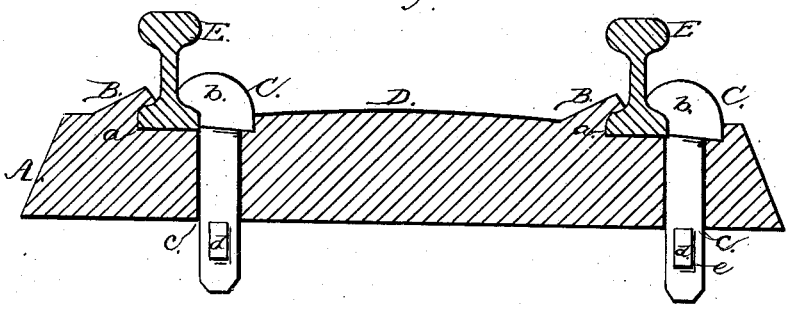


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN PARR, OF HUMBOLDT, ASSIGNOR OF TWO-FIFTHS TO EUGENE A. TUCKER, OF RICHARDSON COUNTY, NEBRASKA.

METAL CROSS-TIE.

SPECIFICATION forming part of Letters Patent No. 260,231, dated June 27, 1882.

Application filed March 25, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN PARR, a citizen of the United States, residing at Humboldt, in the county of Richardson and State of Nebraska, have invented certain new and useful Improvements in Metal Cross-Ties; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to certain improvements in iron cross-ties for railroads, the object of my improvements being to provide a novel and simplified means for attaching the rails to said ties; and my invention consists essentially of an iron cross-tie provided with recesses at each side to receive the base of the rails, which are removably held therein by means of stationary overlapping clamps cast with said tie upon one side of the said recesses and removable clamping-pins upon the opposite sides, which project over upon the flanges of the rails. The upper surface of the said tie is also provided with two metallic bars or rods, which extend lengthwise of the tie and project down into the recesses of the same beneath the rails, all as will be hereinafter more fully described, and specifically designated in the claims.

In the drawings, Figure 1 represents a top plan view of my invention; Fig. 2, a side elevation of the same, and Fig. 3 a sectional view.

Similar letters of reference occurring on the several figures indicate like parts.

A represents the cross-tie, which is made of metal, preferably of cast-iron, and provided near each end with recesses *a a*, adapted to receive the base of the rails E.

B represents overlapping lugs or clamps cast solid with the tie, and arranged at the left side of the said recesses and projecting over the edges of the same, as shown. Upon the opposite sides of the recesses are provided removable metallic pins C, the heads *b* of which project over the edges of the recesses in a manner similar to the clamps B, said removable pins being adapted to pass through openings *c* near the ends of the ties and to be held in place by metallic wedges *d*, passing through a slot, *e*, in the lower part of each pin, as fully shown in the drawings.

D represents metallic bands or rods which extend lengthwise of the tie A, one on each side of the lugs or clamps B, in a groove or channel adapted to receive the same, the ends projecting down into the recesses *a a* and up again at right angles to the bottom of the same, as fully shown in Fig. 3.

The construction of my invention being as described, it will be observed that in the operation of the same the base of the rails E fits snugly within the recesses *a a* upon the bent ends of the metallic bands or rods D, the stationary lugs or clamps B projecting over upon the flanges of the rails on one side, while the overlapping head *b* of each of the removable pins C project over upon the flange of the rails on the opposite side, and the rails secured firmly in place by driving the metallic wedge *d* into the slot *e* in the lower part of each pin directly under the tie.

By means of my improvements the rails are so held with relation to the tie that any sudden jar or strain upon the same is equally distributed through the metallic bands or rods to all parts of the entire construction, said bands or rods also serving to strengthen and support the clamping-lugs on each side. The rails may also be quickly removed or replaced, as well as the tie itself, by means of the removable pins C.

Having thus described my invention, what I claim as new and useful is—

1. The herein-described metal cross-tie, provided with the metallic bands or rods D, projecting into the recesses *a a*, and with the stationary clamps B and removable clamps C, substantially as and for the purpose specified.

2. In a metal cross-tie, the combination of

the rails E with the ties having recesses *a a*, metallic bands or rods D, and clamps B and C, substantially as and for the purpose specified.

3. The herein-described cross-tie, provided with stationary clamps B, recesses *a*, and vertical openings *c*, in combination with the rails E, metallic bands D, and removable clamps C, having an enlarged head, *b*, and slots *e*, adapted to receive the wedges *d*, all substantially as and for the purpose specified.

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

JOHN PARR.

Witnesses:
E. A. TUCKER,
E. W. SCHIRMER, M. D.