R. WHEELER.

METAL CROSS TIE.

APPLICATION FILED JAN. 30, 1911.

996,742. Patented July 4, 1911.

Fig. 1.

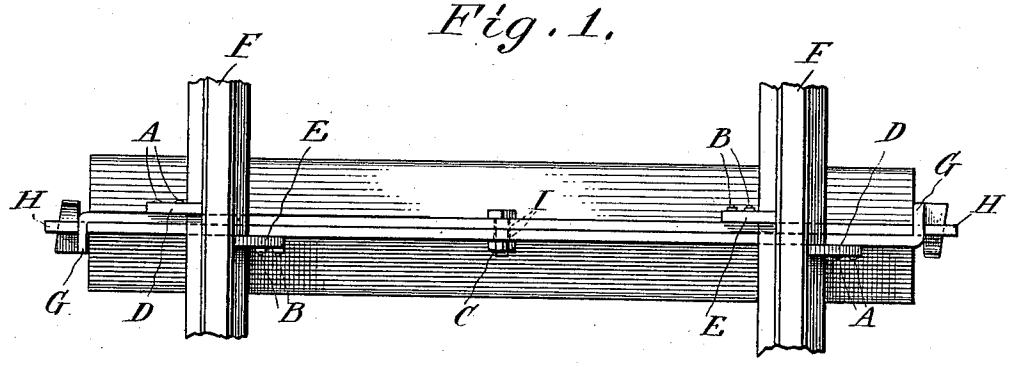


Fig. 4.

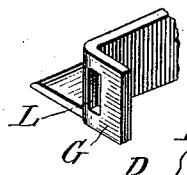


Fig. 5.

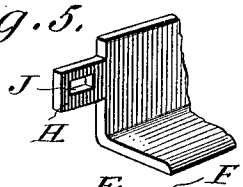


Fig. 2.

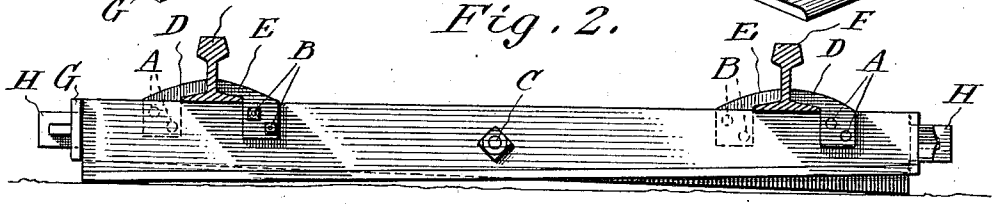


Fig. 3.

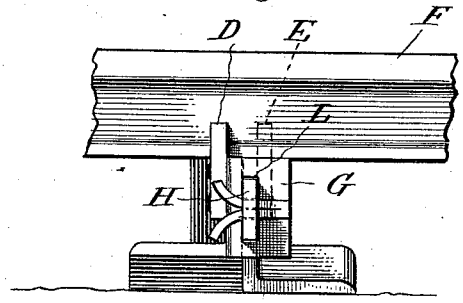
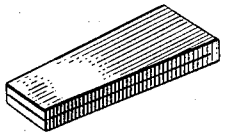


Fig. 6.



Witnesses:

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UNITED STATES PATENT OFFICE.

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METAL CROSS-TIE.

996,742. Specification of Letters Patent. Patented July 4, 1911.

Application filed January 30, 1911. Serial No. 605,653.

To all whom it may concern:

Be it known that I, ROBERT WHEELER, a citizen of the United States, residing at Wellsburg, in the county of Brooke and State of West Virginia, have invented a new and useful Metal Cross-Tie, of which the following is a specification.

My invention relates to improvements in metal cross ties in which the tie is made in two equal parts or sections of L shaped metal bars, the web of each equal part or section being wider at one end and tapering to the other end, and having clips to hold the rail in place fastened on the outside of each equal part or section. The two equal parts or sections being fastened together and holding the rail in place by means of a mortised horizontal flange turned on the narrower end, and a tenon having a slot to receive a wedge shaped spring cotter key on the wider end, and a bolt through the center of the tie; and the objects of my improvement are, first, to provide against the slipping of the track sidewise by means of the tie being of less depth at the central portion than at the ends, thus making the tie to slope downward from the center to the outer ends; second, to provide a certain amount of cushion to the rail by means of the web of each equal part or section of the tie being of a greater width at one end, and of a lesser width at the other end, the complete tie thus being of less depth at the central portion than at the ends. I attain these objects by the mechanism illustrated in the accompanying drawing in which,

Figure 1. is a top view of the tie. Fig. 2. a vertical section of the entire tie. Fig. 3. fastening device at the end of the tie. Fig. 4. mortised horizontal flange. Fig. 5. tenon. Fig. 6. wedge shaped spring cotter keys.

Similar letters refer to similar parts throughout the several views.

A. A. are rivets by which the outside rail clip is fastened on the side of each equal part, or section of the tie.

B. B. are bolts, by which the inside rail clip is fastened on the side of each equal part or section of the tie, to provide for the removal and replacing of the rail.

C. is a bolt through the center of the tie.

D. D. E. E. are rail clips.

F. F. designate rails and G. G. mortised horizontal flanges.

H. H. are tenons.

I. is an elongated bolt hole.

J. is a slot in the tenon to receive the wedge shaped spring cotter key Fig. 6.

L is a mortise in the horizontal flange to receive the tenon H.

I claim—

1. An improvement in metal cross ties in which the tie is made in two equal parts or sections of L shaped metal bars secured together, the web of each equal part or section being wider at one end and tapering to the other end, all substantially as set forth.

2. In a metal cross tie made in two equal parts or sections of L shaped metal bars secured together, the web of each equal part or section being wider at one end and tapering to the other end, and having clips to hold the rail in place fastened on the outside of each equal part or section, substantially as shown for the purpose specified.

ROBERT WHEELER.

Witnesses:

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C. B. MAGEE.