

E. L. TAYLOR.
METALLIC RAILWAY TIE.

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METALLIC RAILWAY-TIE.

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To all whom it may concern:

Be it known that I, ENOCH LEWIS TAYLOR, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Metallic Railway-Ties, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a metallic railroad support having a connecting tie bar adapted to strengthen the same, and firmly support the rail, said bar being also provided with means for securing guard rails in position, as will be hereinafter set forth.

Figure 1 represents an end view of metallic railroad supports embodying my invention. Fig. 2 represents a top or plan view thereof. Fig. 3 represents a vertical section on line *x*, *x*, Figs. 2 and 4. Fig. 4 represents an end view of one of the supports, the tie bar and rail having been removed therefrom.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings: A designates metallic supports, and B designates the tie bars. The supports are of somewhat U-shape and have in their limbs the L-shaped slots C. Said tie bars are of double L-shape, and have their vertical limbs occupying the vertical portions of the slots C. The lower limbs of the ties enter the horizontal portions of said slots, and the upper limbs rest on the portions D of the top plates of the supports, said portions being depressed, and leaving the shoulders E, against which said upper limbs are in contact. The rails rest on the raised portions F of the top plates, of the supports A and also on the upper limb B' of the tie bars, whereby they are firmly sustained, the supports being also of increased strength, owing to the stiffening action of the double L-tie bars which pass through the same. The top plates of the supports are formed with cheek pieces G, which embrace one side of the flanges of the rails, while the opposite sides are embraced by the cheek pieces H on the upper limbs of the tie bars, whereby the rails may be held firmly in position.

J, J, designate ears which rise from the tie bars B' and receive between them the guard rails K, shown in dotted lines, thus firmly sustaining said rails.

In practice, the cheek pieces and ears are

punched out of the metal of which the respective parts are composed.

The supports are formed with inwardly-projecting feet L on one of the limbs thereof, the same being adapted to enter grooves M in the stringers N, on which said supports are seated, it being noticed that the stringers are of less width than the supports. Consequently, when the supports have been moved into position, so that the cheek pieces G clamp the flanges of the rails, the feet L enter the grooves M, after which keys or wedges P are inserted between the sides of said stringers opposite to the grooves M, and the adjacent limbs of the supports, whereby the supports are firmly clamped to or locked with the stringers, and they are prevented from shifting so that the rails are effectively and tightly held in position on the supports.

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

1. A metallic railroad support having an L-shaped slot therein, and a tie bar of double L-form partly occupying said slot, and having one limb resting on said tie, substantially as described.

2. A metallic railroad tie in combination with a tie bar, the latter being formed with ears which rise therefrom, and are adapted to support and secure a guard rail, substantially as described.

3. A metallic rail support having L-shaped slots in its sides, and a raised portion on its top plate, and an L-shaped tie bar with its upper limb resting on said support, said parts being combined substantially as described.

4. A metallic railway support having a raised portion in its top plate with a cheek piece thereon, and a tie bar fitting in a slot and having a limb resting on said support and having a cheek piece thereon, said parts being combined substantially as described.

5. A metallic railway support having downwardly-projecting limbs with laterally-projecting feet, stringers with recesses to receive said feet, and keys fitting between said supports and stringers, said parts being combined substantially as described.

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Witnesses:

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