

F. E. FETTER.
RAILWAY TIE.
APPLICATION FILED FEB. 23, 1911

992,415.

Patented May 16, 1911.

Fig. 1.

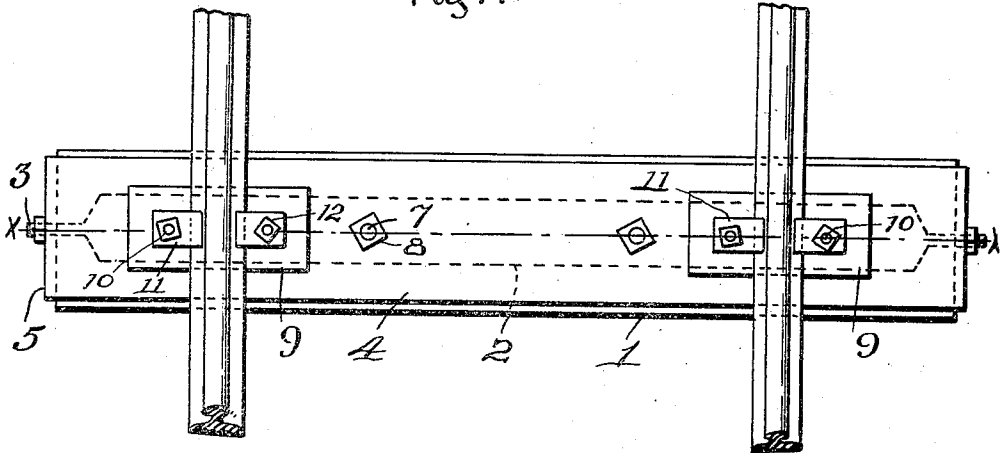


Fig. 2.

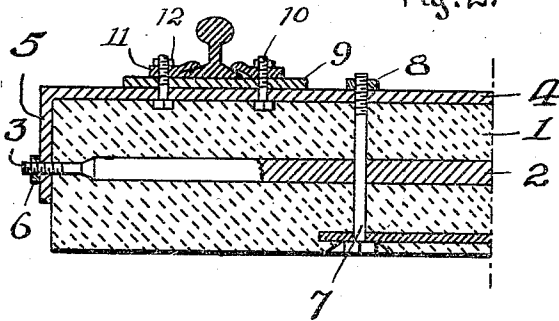
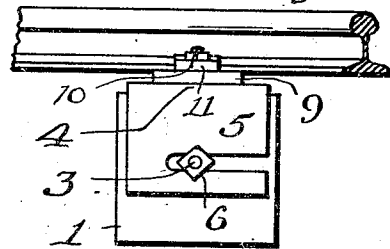


Fig. 3.



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RAILWAY-TIE.

992,415.

Specification of Letters Patent.

Patented May 16, 1911.

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To all whom it may concern:

Be it known that I, FRANK E. FETTER, citizen of the United States, residing at Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Railway-Ties, of which the following is a specification.

This invention relates to improvements in railway ties and the object of my invention is to provide a tie of cement or concrete, with a suitable reinforce and a metal cover plate, with suitable supporting plates and securing means for the railway rails.

The invention is more fully described in the following specification and clearly illustrated in the accompanying drawing, in which:—

Figure 1 is a plan view of my tie. Fig. 2 is a longitudinal section on line X—X of Fig. 1, and showing only one-half of the tie. Fig. 3 is an end view of my tie.

The numeral 1 designates the body of the tie, which may be made of cement or concrete.

The numeral 2 designates the reinforce, which is in the form of a rectangular bar, lying through the center of the tie longitudinally, and extending to a point in close proximity to each end. At these points, the bar is reduced to threaded bolt formations 3, which protrude some distance beyond the end surfaces of the tie.

The numeral 4 designates the cover plate. This plate is formed with downwardly bent end portions 5, which lie along the end walls of the tie. The protruding ends of the bolts 3 pass through openings in these end portions 5 and are provided with nuts 6.

The numeral 7 designates the vertical clamping bolts which pass through the tie from the under side, and through the longitudinal reinforce 2 and are provided on the top with nuts 8. These bolts, one of which is located inside the line of each of the rails, securely hold the cover plate in position against the tie 1.

To the upper side of the cover plate 1, at the points where the rails will cross it, I secure a bed plate 9 on which the rails

will rest. This plate is secured to the cover plate 1 by means of bolts 10 whose heads are embedded in the cement tie and which bolts pass through the plates. These bolts also pass through and securely hold the rail clamps 11, and nuts 12 on their ends will serve to hold the parts together.

The cover plate will not be able to move longitudinally on the tie, by reason of its being engaged at both ends and by the vertical bolts. The bed plates will be securely held to the cover plate by the bolts 10 which also hold the rail clamps. It will be seen therefore, that while the rail may be easily removed and replaced, as may also the bed plates when worn, the possibility of the rail spreading, with relation to the tie, is entirely removed.

The tie is substantially everlasting, its upper or exposed surface is thoroughly protected by the metal cover plate and this plate is also protected from wear by the bed plates beneath the rails, which are easily and readily replaced when worn.

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

In a railway tie the combination of a body of concrete and a metal reinforce of rectangular cross-section embedded in its longitudinal center and having reduced screw threaded extremities which protrude from each end of the tie; with a metal cover plate extending the entire length of the tie and having downwardly bent ends which lie closely along the end walls thereof and through the bent ends of which the threaded ends of the reinforce pass; vertical securing bolts passing through the tie, reinforce, and cover plate; bed plates secured to the upper face of the cover plate and rail clamps secured to the bed plates by the same bolts that secure the bed plates to the cover plate.

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

FRANK E. FETTER.

Witnesses:

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