

J. F. SCHOMER.
CONCRETE RAILWAY TIE.
APPLICATION FILED JULY 26, 1913.

1,081,702.

Patented Dec. 16, 1913.

2 SHEETS-SHEET 1.

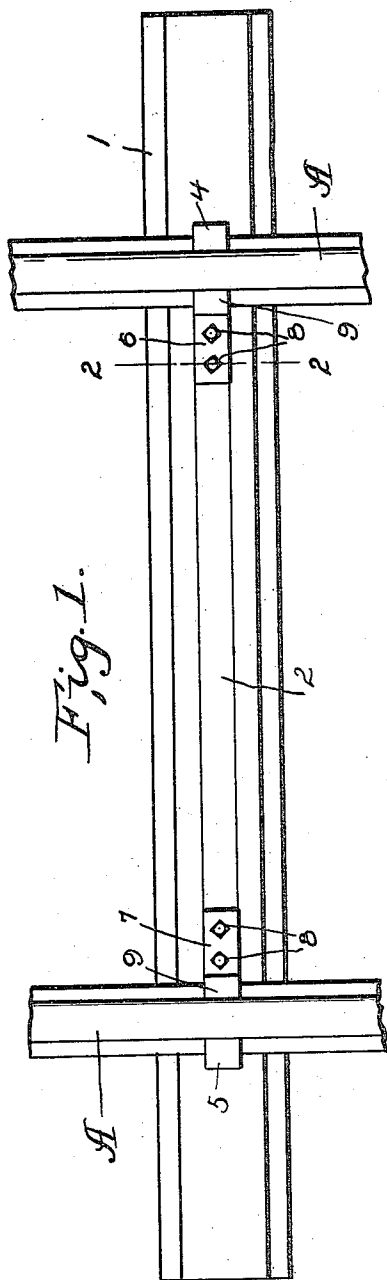


Fig. 1.

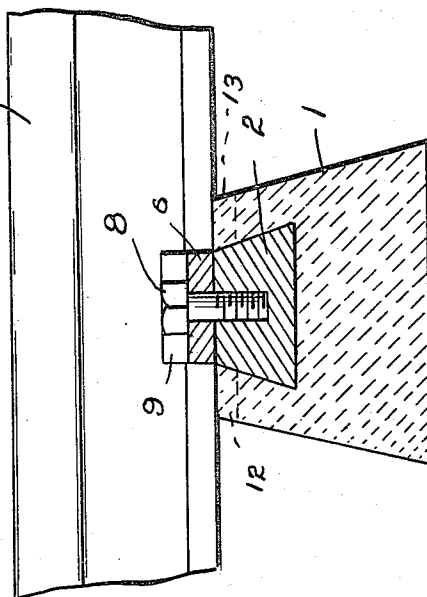


Fig. 2.

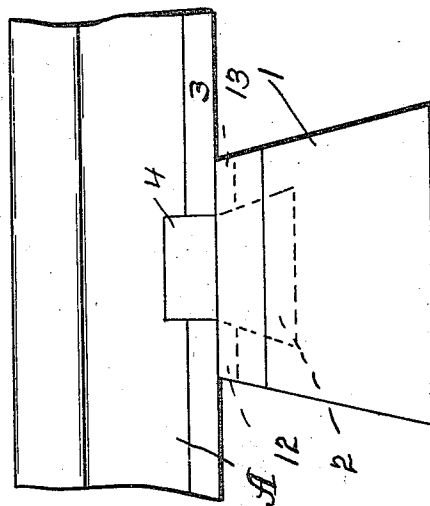


Fig. 3.

Witnesses

R. H. Jones
Chas. L. Hume

Inventor

J. F. Schomer.

By

W. H. Schomer

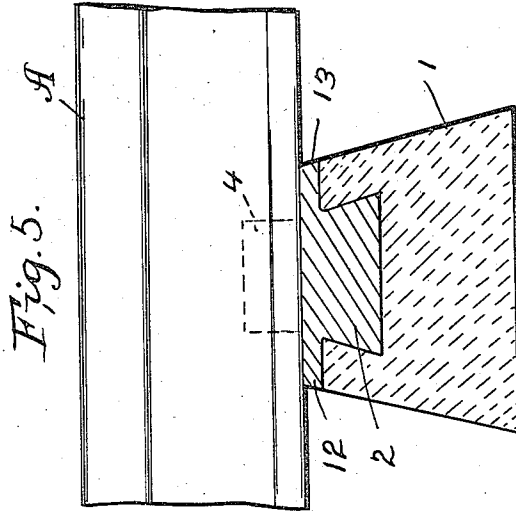
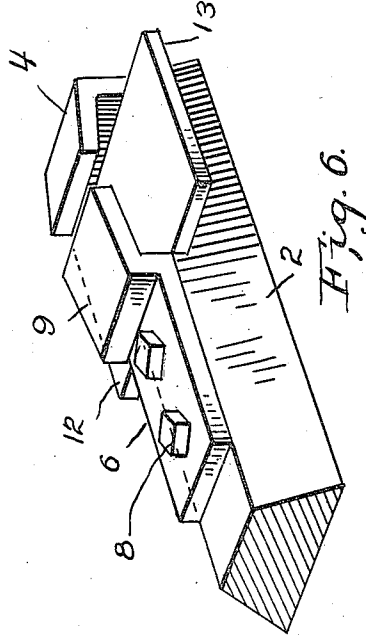
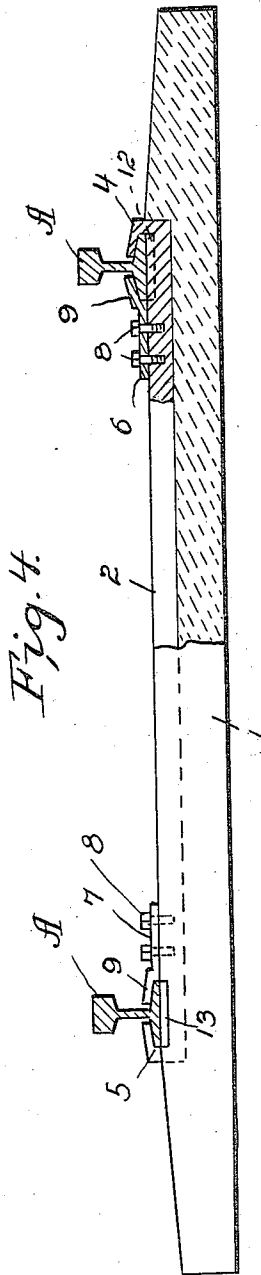
Attorney.

J. F. SCHOMER.
CONCRETE RAILWAY TIE.
APPLICATION FILED JULY 26, 1913.

1,081,702.

Patented Dec. 16, 1913.

2 SHEETS-SHEET 2.



Witnesses
R. H. Jones.
Chas. H. Hume.

Inventor
J. F. Schomer.
By *A. H. Schomer.* Attorney

UNITED STATES PATENT OFFICE.

JOHN F. SCHOMER, OF VICTOR, COLORADO.

CONCRETE RAILWAY-TIE.

1,081,702.

Specification of Letters Patent.

Patented Dec. 16, 1913.

Application filed July 26, 1913. Serial No. 781,311.

To all whom it may concern:

Be it known that I, JOHN F. SCHOMER, a citizen of the United States, residing at Victor, in the county of Teller and State of Colorado, have invented certain new and useful Improvements in Concrete Railway-Ties; and I do hereby 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.

My invention relates to new and useful improvements in railway ties and has particular reference to concrete ties and resides in the provision of novel means for securing the rail to the tie.

An important object of my invention is the provision of a device of the above mentioned character which employs a rail fastening calculated to connect the rails to cross ties in such a manner that spreading of the rails is precluded and also in such manner that at curves the great pressure and strain on the outer rails, incident to the passage of the train, is distributed between the outer and inner rails and the liability of said outer rails being displaced is reduced to a minimum.

A further important object of my invention is to provide a device of the above mentioned character constructed of few parts, reliable in its operation, and cheap to manufacture.

The above and additional objects are accomplished by such means as are illustrated in the accompanying drawing, described in the following specification and then more particularly pointed out in the claim which is appended hereto and forms a part of this application.

With reference to the drawings, wherein I have illustrated the preferred embodiment of my invention as it is reduced to practice, and throughout the several views of which similar reference numerals designate corresponding parts: Figure 1 is a top plan view showing my device in assembled position, Fig. 2 is a transverse sectional view taken on line 2—2 of Fig. 1, illustrating the manner of securing the rail to the tie, Fig. 3 is an end elevation of the tie showing the rail secured thereto, Fig. 4 is a front elevation showing the tie, rail, and rail fastening means partly in section, Fig. 5 is a transverse section taken through the tie and rail

fastening means, and Fig. 6 is a detail perspective view of the rail fastening means.

Referring now to the drawings the numeral 1 designates as an entirety a concrete tie which is trapezoidal in cross section and provided at its upper surface with a longitudinal bar 2 which is embedded or molded within the concrete tie at the time of its formation. The longitudinal bar 2 is trapezoidal in cross section for the obvious purpose of providing an anchoring means for holding it against removal from the concrete tie, and extends to a point slightly beyond the rail bases 3 of each of the rails A. The bar 2 is provided terminally with inwardly turned rail base engaging members 4 and 5, which are inclined and spaced with relation to the bar 2 and adapted to engage the outer inclined faces of the rail bases 3.

As a means for removably securing the rails to the tie this invention employs clamping plates 6 and 7, which are removably secured to the bar 2 adjacent each of the rails by means of the screw-threaded bolts 8 extending through each of the members 6 and 7 and having threaded engagement with the bar 2. The clamping plates 6 and 7 are each provided with an offset rail base engaging portion 9 which is adapted to engage the inner portions of the rail bases 3, whereby the rails are securely held against removal from the tie.

As a means for preventing the rail from engaging the concrete portion of the tie upon either side of the bar 2 and causing that portion of the tie to wear, this invention employs a pair of laterally extending flanges 12 and 13 which are formed integral with the bar 2 and are flush with the upper surface thereof, adjacent the members 4 and 5, and lie flush with the side edges of the tie 1, at their outer edges. The flanges 12 and 13 extend laterally from the bar 2 and serve, as would a plate, to space the rail from the concrete portion of the tie and therefore increase the life of the same.

The operation of securing the rails to the tie will be apparent with reference to the foregoing description.

In reduction to practice, I have found that the form of my invention illustrated in the drawings and referred to in the above description, as the preferred embodiment, is the most efficient and practical; yet realizing that the conditions concurrent with the

adoption of my device will necessarily vary, I desire to emphasize the fact that various minor changes in details of construction, proportion and arrangement of parts may be
5 resorted to, when required, without sacrificing any of the advantages of my invention, as defined in the appended claim.

What I claim is:—

10 In a device of the character described the combination with a concrete tie of a longitudinal rail clamping bar embedded therein, said bar being dove-tailed to prevent its withdrawal from the tie, an angular clamping member formed integrally with each of
15 the terminals of said bar adapted for en-

gagement with the rail bases, rail base clamping plates removably secured to said bar, a pair of laterally extending flanges formed integral with said bar and terminating in flush relation with the side edges of
20 the tie and said flanges and the upper surface of said bar forming a rectangular supporting plate whereby the rails are spaced from the tie.

In testimony whereof I affix my signature 25
in presence of two witnesses.

JOHN F. SCHOMER.

Witnesses:

H. M. TURLEY,

A. L. BABCOCK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."