

(No Model.)

R. DINSMORE.
RAILWAY TIE.

No. 517,447.

Patented Apr. 3, 1894.

Fig. 1.

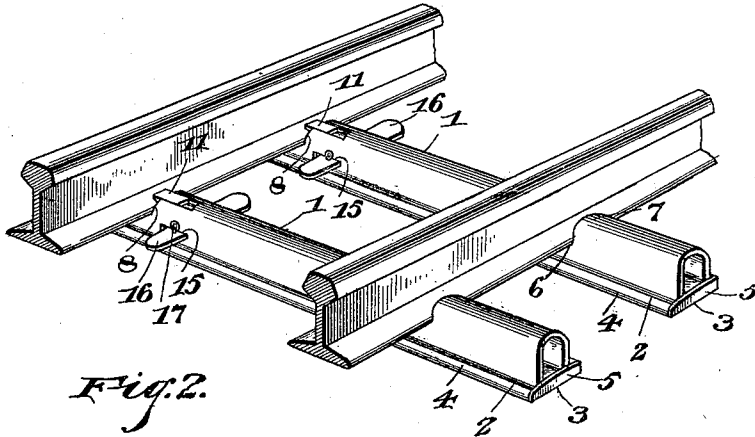


Fig. 2.

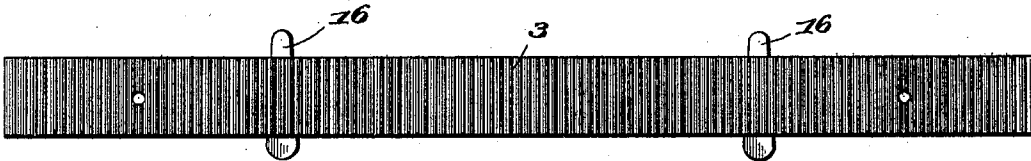


Fig. 3.

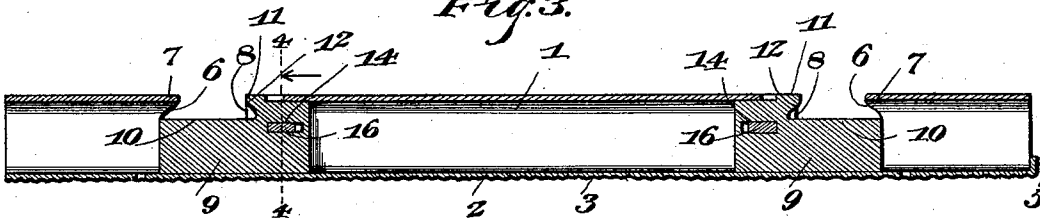


Fig. 4.

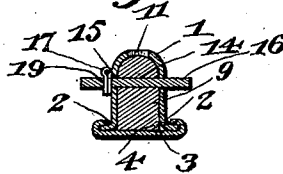


Fig. 5.

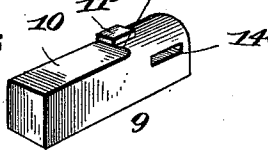


Fig. 6.



Inventor

Robert Dinsmore,

Witnesses

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E. S. Dinsmore

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UNITED STATES PATENT OFFICE.

ROBERT DINSMORE, OF WESTON, WEST VIRGINIA, ASSIGNOR OF ONE-HALF
TO ADOLPH GREENSTEIN, OF SAME PLACE.

RAILWAY-TIE.

SPECIFICATION forming part of Letters Patent No. 517,447, dated April 3, 1894.

Application filed July 7, 1893. Serial No. 479,820. (No model.)

To all whom it may concern:

Be it known that I, ROBERT DINSMORE, a citizen of the United States, residing at Weston, in the county of Lewis and State of West Virginia, have invented a new and useful Railway-Tie, of which the following is a specification.

This invention relates to a metallic railway tie, especially adapted for use in connection with street or general railways, and it contemplates the provision of means for taking up the lost motion caused by the lateral vibration of the rails; furthermore, it contemplates the provision of such a construction that the rails may be readily detached from the ties for purposes of repair, regrading, &c.; and furthermore, the provision of means for the easy lateral adjustment of the ties with relation to the line of the road.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings: Figure 1 is a perspective view of a section of track in connection with ties embodying my invention. Fig. 2 is a reverse plan view of one of the ties. Fig. 3 is a longitudinal central section of the same. Fig. 4 is a transverse section on the line 4-4 of Fig. 3. Fig. 5 is a detail view in perspective of the sliding keeper. Fig. 6 is a similar view of the wedge.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates the body portion of the improved tie which is hollow, being in the form of an arch which may be struck from plate metal with its free edges flanged or flared, as shown at 2. 3 represents a base-plate of equal length with the body portion of the tie and provided at its side edges with guides 4, which are formed by turning the lateral edges of the plate. Said base-plate is further provided at one end with a stop 5, to check the relative movements of the body portion and plate when they are in operative position.

The hollow body portion of the tie is provided with a seat 6, of a width equal to the base

of a rail and having an overhanging neck 7, which takes over the upper surface of the base of the rail when the latter is in place. The opposite side of the seat is provided with a vertical shoulder 8, to bear against the edge of the opposite side of the base of the rail.

Slidably mounted in the body portion of the tie, and fitting the interior thereof snugly, is a cylindrical keeper 9, having a flat lower side to bear upon the upper surface of the base-plate, and having in its upper side a flattened seat 10, which is adapted to be arranged in alignment with the seat in the body portion of the tie. A catch or lug 11 is fixed to, and preferably formed integral with, the upper side of the body portion of the slide, and is provided with an undercut shoulder 12, to engage over the edge of the base opposite to the above described lip. This lug or catch fits in a slot or elongated opening 13, in the upper side of the body portion of the tie. The slide is further provided with a transverse opening 14, which is adapted to register with corresponding openings 15 in the opposite sides of the body portion of the tie to receive a horizontally-disposed wedge 16. It will be understood that as this wedge is driven into the registering openings of the slide and tie, the former will be forced toward the rail to bind the latter firmly in its seat in the tie. A locking-pin 17 may be dropped into a suitable perforation 19 in the reduced end of the wedge.

From the above description it will be understood that any looseness of the rail in the seat provided therefor may be taken up by tightening the wedge; and furthermore, that in applying the tie to a roadbed the base portion thereof may be fixed in place prior to the attachment of the hollow body portion, thus enabling the securing devices, such as spikes, which are driven through suitable perforations in the base portion to be concealed and protected by the hollow portion. Said perforations are shown in Figs. 2 and 3. Furthermore, the portion of the slide which extends under and bears the weight of the rail adds firmness and strength to the structure at the point requiring such support, while not detracting from the advantages to be derived

from a hollow tie; such advantages consisting in lightness for a given strength, ease of manufacture, &c.

5 The under surface of the base portion of the tie, as shown clearly in Fig. 2 of the drawings, is corrugated or roughened to prevent slipping and insure the firm embedding of this part into the surface upon which it rests.

10 It will be understood that various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

15 Having described my invention, what I claim is—

1. In a metallic rail tie, the combination of a base consisting of a plate and adapted to be secured permanently to the sleepers, and a hollow removable body-portion slidably
20 connected to the base and provided with seats and locking devices for the rails, said body-portion being arranged to cover and conceal the securing devices for the base, substantially as specified.

25 2. In a metallic rail tie, the combination of a base provided with upturned lateral edges forming grooves, and having a terminal stop

5, and a hollow body-portion arched in cross-section and provided at its lower edge with lateral flanges 2 engaging said grooves in the
30 base whereby the body-portion is removable from the base, and means for securing the rails to the body-portion, substantially as specified.

3. The combination with an arched hollow
35 rail tie provided in its upper side with a seat 6 having an overhanging lip 7, of a keeper 9 slidably fitted in and filling the bore of the tie and provided with a flat seat 10, a catch or lug 11 arranged opposite to the lip 7, and
40 a transverse opening 14 which is adapted to register with corresponding openings 15 in opposite sides of the tie, a wedge 16 engaging said registering openings, and a locking-pin
45 17 engaging a perforation in the reduced end of the wedge, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ROBERT DINSMORE.

Witnesses:

C. J. WIMER,

D. M. TIMBERLAKE.