

No. 814,327.

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W. A. ROLLINS.

RAILWAY TIE.

APPLICATION FILED JUNE 10, 1904.

Fig. 1.

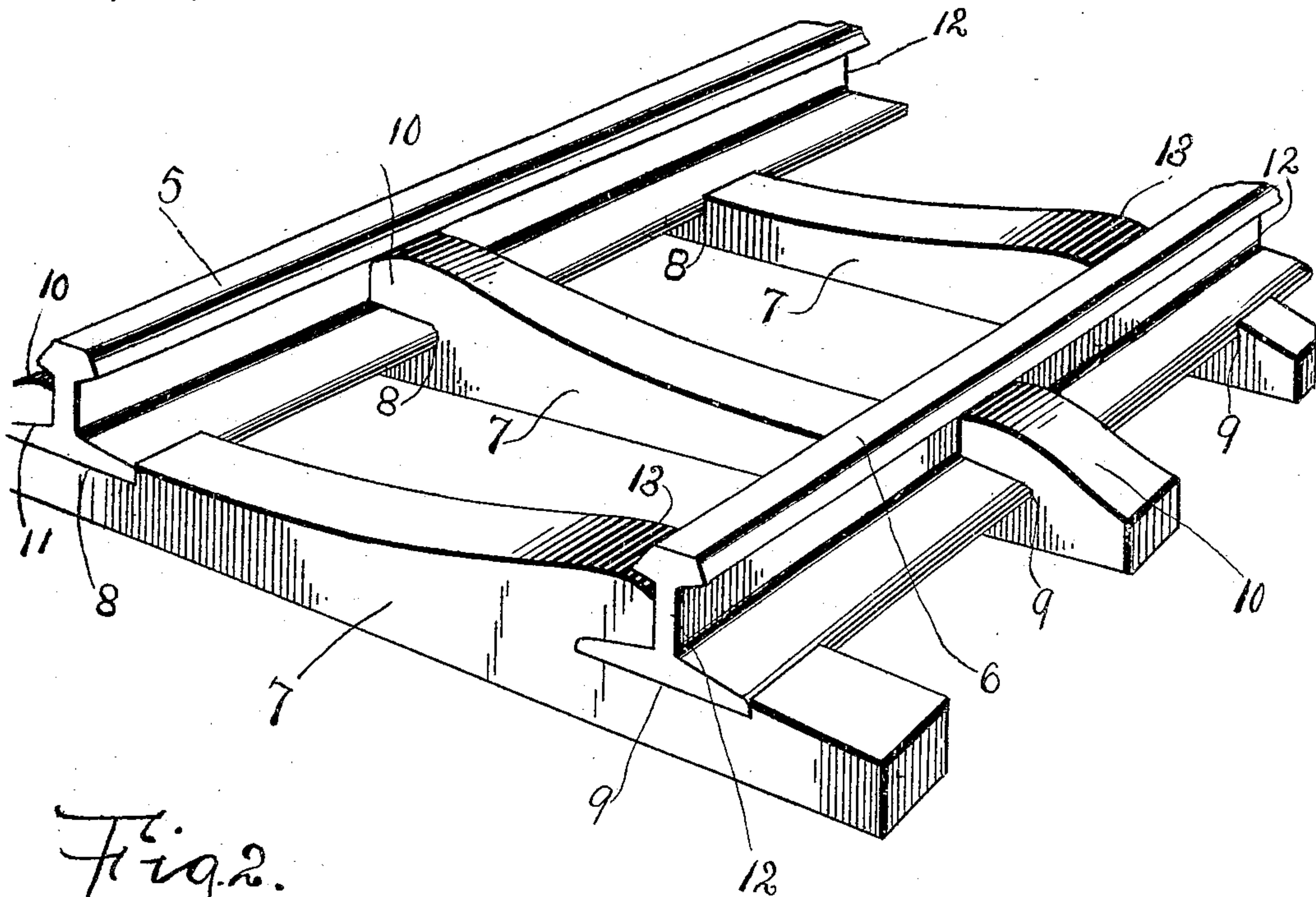


Fig. 2.

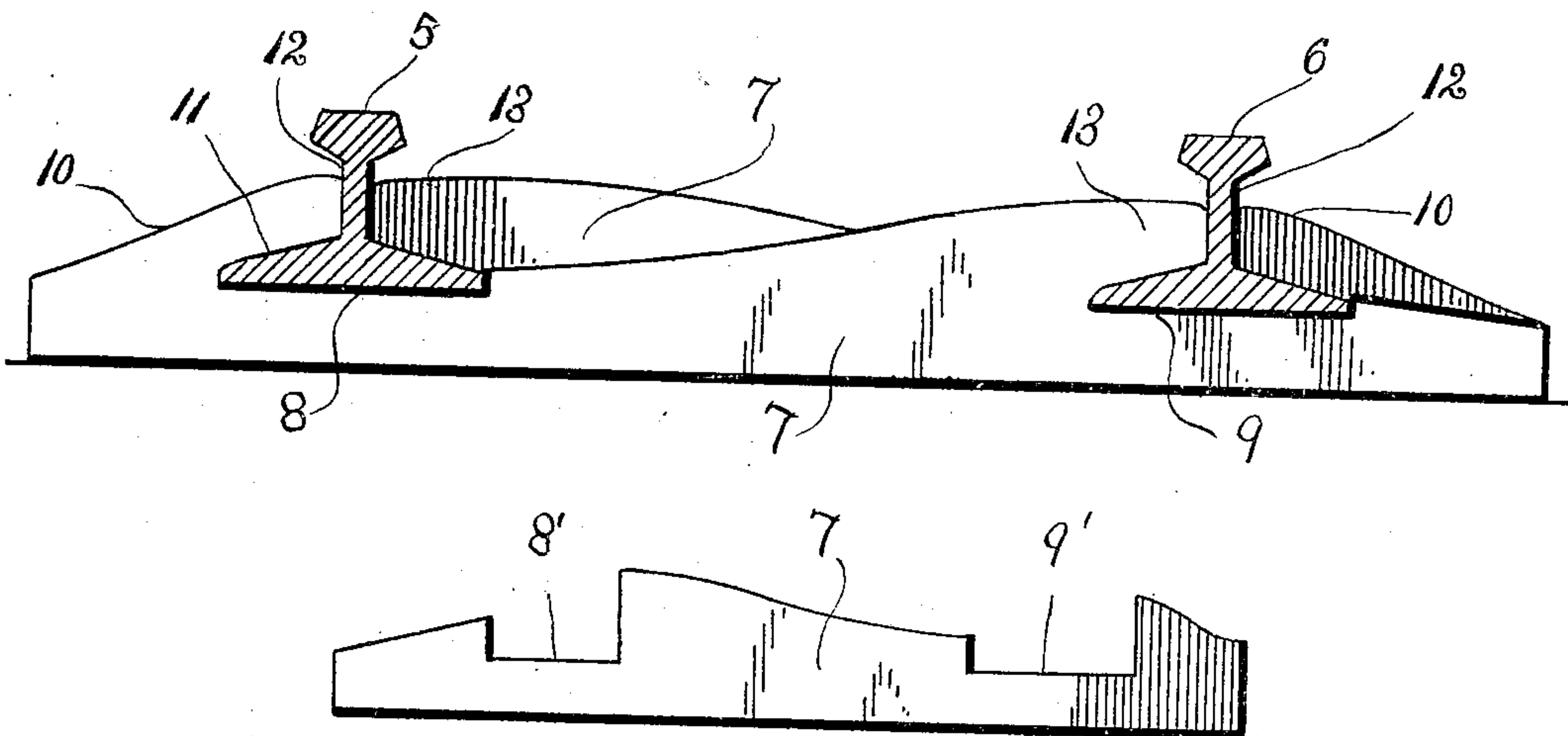


Fig. 3.

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RAILWAY-TIE.

No. 814,327.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM A. ROLLINS, a citizen of the United States, residing at Caddo, in the Choctaw Nation, Indian Territory, have invented certain new and useful Improvements in 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.

This invention relates to railway-ties, and more particularly to that class known as "metallic" ties, the object of the invention being to provide a tie which may be formed of cast metal, which may be readily applied to and removed from the rails, and which when in place will hold the rails securely against lateral displacement in either direction without the use of supplementary securing means, such as spikes.

Other objects and advantages of the invention will be understood from the following description.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a perspective view showing the portion of a railway, including ties, embodying the present invention. Fig. 2 is an end elevation of the construction shown in Fig. 1. Fig. 3 is a side elevation of a tie such as is employed at a rail-joint.

Referring now to the drawings, there is shown a pair of railway-rails 5 and 6 of the ordinary construction in connection with three ties. Each of the ties comprises a body portion 7, having recesses 8 and 9 in its upper face adjacent to its ends, the recesses being each of a width to snugly receive the base of a rail. From the upper face of the body of the tie at the outer side of the recess 8 there rises a hook 10, which projects part way over the recess 8, so as to fit upon the top of the base-flange 11 of a rail and rest with its end against the web 12 of the rail, this hook serving to hold the rail against vertical displacement from the tie. The upper face of the tie between the recesses 8 and 9 is inclined with a compound curvature, the metal of the upper portion of the tie projecting part way over the recess 9 to form a hook 13, corresponding to the hook 10, and which fits the flange and web of the rail in the same

manner as does the hook 10 fit the rail in the recess 8.

In assembling the rails and ties the said ties are placed with their recessed portions in engagement with the end of the rails, with one flange of the rail engaged under the hooks 10 or 13 of the same, as the case may be, and the opposite flange of the rail with its edge in engagement with the other wall of the recess. The ties being thus engaged with the rails are then forced along the same to their proper relative position to form a completed track-section, and it will be readily understood that the rails being inserted in this manner are held securely in the recesses of the ties, thus preventing any lateral movement of the said rails with respect to each other. It will also be apparent that the flanges of the rails which are engaged beneath the hook portions of the tie are held tightly therein by reason of the other flange of the rail being in engagement with the side wall of the recess and that the entire surface of the walls forming the recesses in each tie are in close contact with the flanges of the rails.

In Fig. 3 of the drawings there is shown a tie designed for use at a rail-joint, the tie being the same in general construction as that shown in Figs. 1 and 2, except that both sides of each recess 8' and 9' are vertical, there being no material overhanging either recess, it being understood that such overhanging material would interfere with the fish-plate. Furthermore, the recesses 8' and 9' are of sufficiently greater widths to receive the fish-plates in connection with the rails.

What is claimed is—

In a railway, the combination with rails having flanged faces, of ties, the upper face of one end of each tie being sloped upward and terminating abruptly to form a vertical rail-engaging face, the portion of the tie underlying the sloped portion being cut away to conform to one side of the base-flange of a rail, the other side of said flange having its edge abutting the opposite side wall of said cut-away portion to hold the base-flange of the rail tightly in the said cut-away portion, the said side wall being of greater height than the thickness of said flange, the portion of each tie intermediate said rails being sloped upwardly and terminating abruptly to form a rail-engaging face, the portion of the tie

underlying the sloped portion being cut away
to conform to one side of the base-flange
of a rail, the other side of the said flange
abutting the opposite side wall of said cut-
5 away portion to hold the base-flange of the
rail tightly in said cut-away portion, the said
tie being placed in a series with their sloped
portions extending alternately in opposite
directions, the entire surface of the walls

forming the recesses of each tie being in close 10
contact with the rail-flange.

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

WILLIAM A. ROLLINS.

Witnesses:

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