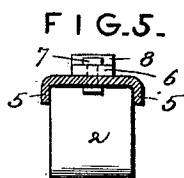
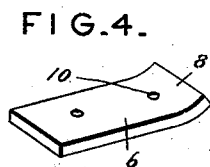
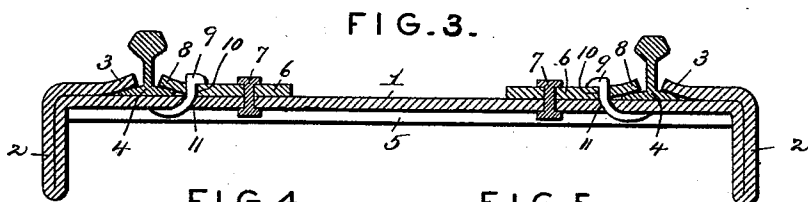
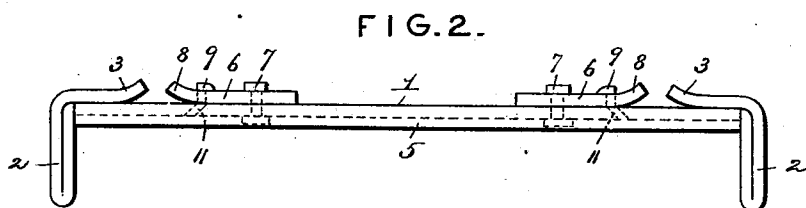
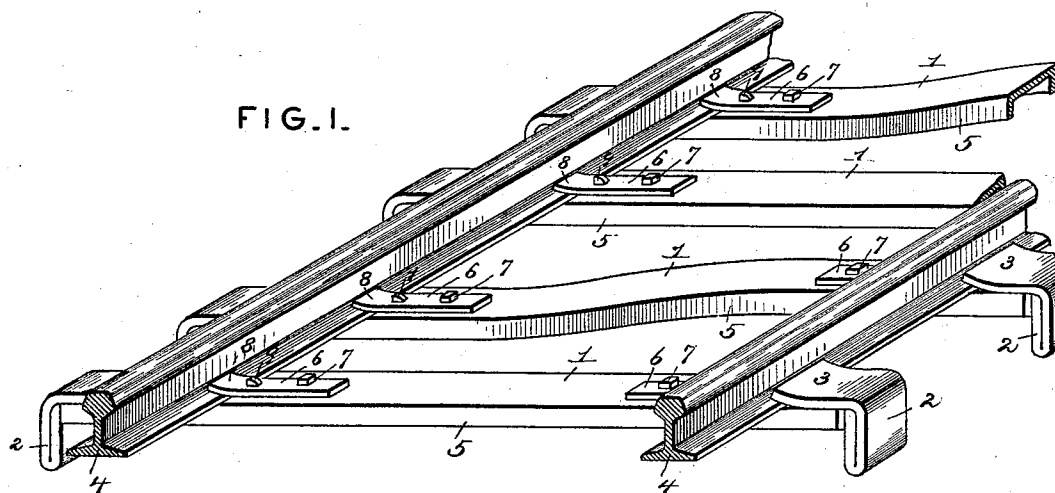


(No Model.)

F. P. FEUERBACHER.
CROSS TIE FOR RAILROADS.

No. 521,158.

Patented June 12, 1894.



Inventor

Frank Paul Feuerbacher.

Witnesses

Harry L. Amer.
J. H. Riley

By his Attorneys.

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

FRANK PAUL FEUERBACHER, OF OKLAHOMA, OKLAHOMA TERRITORY,
ASSIGNOR OF ONE-HALF TO JOHN M. FIGHTMASTER AND HENRY H.
HOWARD, OF SAME PLACE.

CROSS-TIE FOR RAILROADS.

SPECIFICATION forming part of Letters Patent No. 521,158, dated June 12, 1894.

Application filed March 23, 1894. Serial No. 504,830. (No model.)

To all whom it may concern:

Be it known that I, FRANK PAUL FEUERBACHER, a citizen of the United States, residing at Oklahoma, in the county of Oklahoma and Territory of Oklahoma, have invented a new and useful Cross-Tie for Railroads, of which the following is a specification.

The invention relates to improvements in metallic cross-ties.

10 The object of the present invention is to provide a simple and inexpensive metallic cross-tie, which will be positive and reliable in its operation, possess the necessary spring or resiliency, and permit a ready application of the rails.

A further object of the invention is to provide a metallic cross-tie, which will be effectively prevented from slipping or shifting laterally of the road bed.

20 The invention consists in the construction and novel combination and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

25 In the drawings—Figure 1 is a perspective view of a portion of a track provided with cross-ties constructed in accordance with this invention. Fig. 2 is a side elevation of a cross-tie. Fig. 3 is a transverse sectional view of the track, illustrating the manner of securing the rails. Fig. 4 is a detail perspective view of one of the clip plates.

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

35 1 designates a metallic cross-tie constructed preferably of wrought iron, and having its outer portions or ends doubled on themselves and bent downward forming depending end flanges 2, which are arranged transversely of the cross-tie and are embedded in the road bed or ballast. The metal is doubled on the outer and upper faces of the cross-tie, and its terminals are bent upward at an inward inclination to form flanges 3, to receive the outer portions of the bottom flanges of rails 4, whereby the latter are secured at those points. The cross-tie, which possesses by this construction sufficient elasticity or strain is provided with narrow longitudinal depend-

ing flanges 5, which impart the necessary stiffness and contribute strength. The rails are secured at their inner sides by pivoted clip plates 6; the latter are secured at their inner terminals by rivets or other fastening devices 7, and their outer engaging ends 8 are bent upward to form flanges which, after a rail has been placed into position on the cross-tie, are turned to lock the inner portions of the bottom flanges of the rails. The pivoted clip plate is locked in its operative position by a spike 9, which passes through an opening 10 of the clip plate and an inclined opening 11 of the cross-tie, whereby the spike after being driven in is automatically clinched.

Every other cross-tie is preferably sigmoidally-shaped, or slightly bent, as illustrated in the accompanying drawings, to prevent any slipping or shifting laterally of the road bed.

It will be seen that the cross-tie is simple and comparatively inexpensive in construction, that it is strong and durable and possesses the necessary elasticity, and that a rail may be readily clamped to it.

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.

What I claim is—

1. A metallic cross-tie doubled at its ends on its outer face and bent downward to form depending transverse end flanges, and having the terminals of the metal arranged on its upper face and bent upward to form flanges for locking rails, substantially as described.

2. The combination of a metallic cross-tie provided between its ends with depending longitudinal flanges, and having its ends bent downward to form transverse flanges and having the metal doubled or returned on its outer and upper faces and terminating in locking flanges, said cross-ties being provided with inclined spike openings, and pivoted locking plates arranged adjacent to the locking flanges and provided at their inner terminals with flanges and having openings corresponding with the openings of the cross-

tie, said openings being adapted for the reception of spikes, substantially as described.

3. The combination with a rail, of a metallic cross-tie provided adjacent to the rail with
5 an inclined spike opening, and a pivoted clip plate mounted on the cross-tie and engaging the adjacent side of the bottom flange of the rail and provided with a perforation registering with the inclined spike opening and adapt-
10 ed to receive a spike, whereby the latter is

turned up or clinched on the lower face of the cross-tie, substantially as described.

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

FRANK PAUL FEUERBACHER.

Witnesses:

H. H. HOWARD,
H. M. CARR.