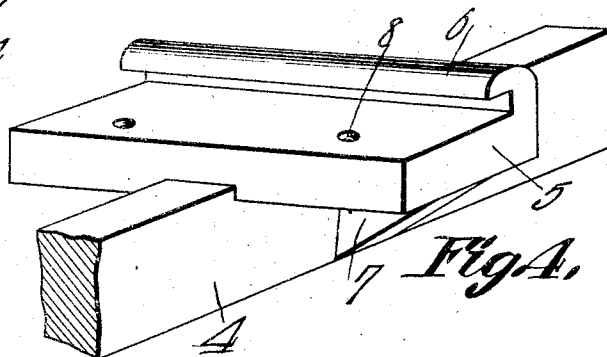
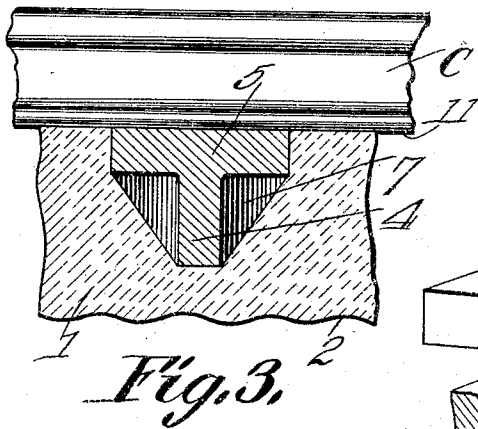
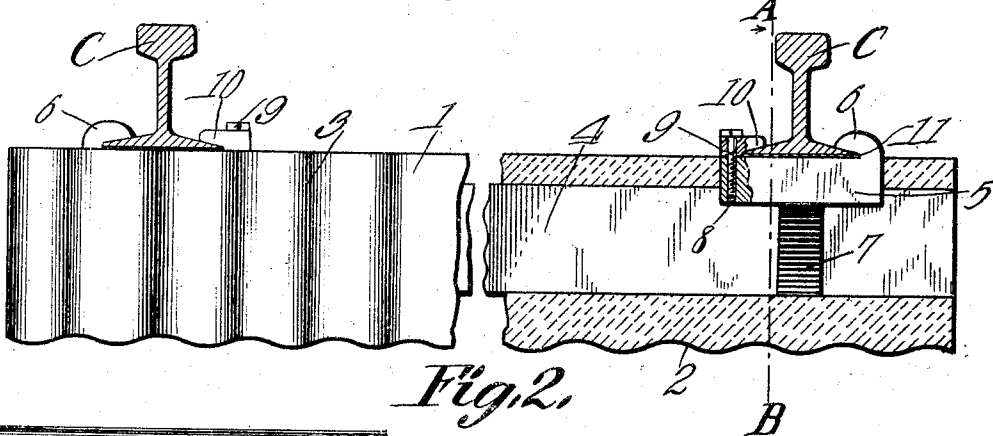
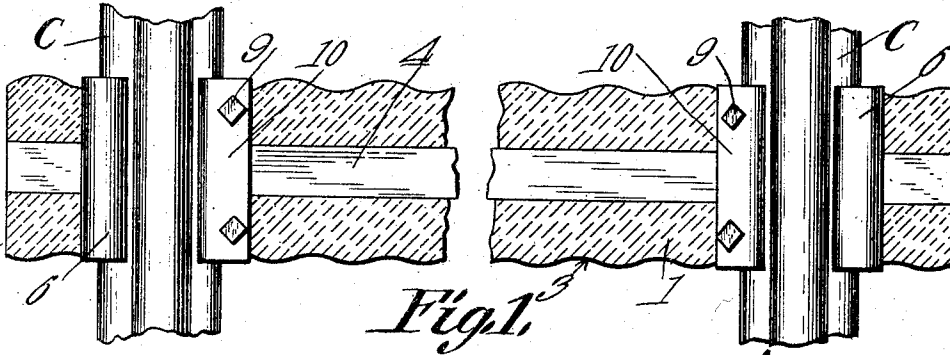


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1,047,928.

Patented Dec. 24, 1912.



Witnesses

J. J. Tomlin
L. H. Wilcox.

Benjamin F. Fink, Inventor
by *C. A. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

BENJAMIN F. FINK, OF HUNTINGDON, PENNSYLVANIA.

RAILWAY-TIE.

1,047,928.

Specification of Letters Patent.

Patented Dec. 24, 1912.

Application filed March 15, 1912. Serial No. 684,051.

To all whom it may concern:

Be it known that I, BENJAMIN F. FINK, a citizen of the United States, residing at Huntingdon, in the county of Huntingdon and State of Pennsylvania, have invented a new and useful Railway-Tie, of which the following is a specification.

This invention relates to composite railway ties, its object being to provide a tie formed of concrete reinforced with metal, the metallic reinforce being so disposed as to constitute bearings for the rails, there being rail engaging elements integral with the reinforce whereby spreading of the rails on the tie is prevented.

A further object is to provide a reinforce of novel form whereby displacement thereof relative to the concrete body is prevented.

A further object is to provide a tie so shaped as to be held against creeping after once being placed in position on the road bed.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a plan view of the metallic portion of the tie and showing rails in position thereon, the concrete body of the tie being shown in section. Fig. 2 is a view partly in side elevation and partly in section of the tie, rails being shown in position thereon. Fig. 3 is a section on line A—B Fig. 2. Fig. 4 is a perspective view of a portion of the metallic reinforce.

Referring to the figures by characters of reference 1 designates a concrete body of any desired proportions, the same being formed with transverse corrugations 2 on the bottom thereof and with additional cor-

rugations 3 along its side faces and extending from the top to the bottom of the tie. Thus it will be seen that when the tie is seated on the road bed, it will be held against creeping.

Embedded within the concrete body 1 is a metallic reinforcing bar 4 preferably rectangular in cross sectional contour. Formed on the top of the bar adjacent its ends are bearing blocks 5 the upper faces of which are flush with the upper face of the body 1 and are provided, along one edge, with upstanding rail engaging flanges 6 adapted to overhang and to engage the outer base flanges of the rails C. Webs 7 are formed under the end portions of the blocks 5 and upon the sides of the bar 4 and are integral therewith, these webs serving to reinforce the blocks 5. The webs furthermore prevent the bar 4 from shifting longitudinally within the concrete body. Threaded apertures 8 are formed in the blocks 5 adjacent those edges thereof farthest removed from the flanges 6 and these apertures are designed to receive bolts 9 used for holding in place rail clamping plates 10 designed to engage the inner base flanges of the rails C.

In using the tie the rails are placed on the blocks 5 so that their outer base flanges will be engaged by the flanges 6. If desired, and as shown in Figs. 2 and 3, cushions 11 of leather, wood or any other suitable material may be placed on the blocks and under the rails. After the rails have been placed in position the plates 10 are secured to the tie by means of the bolts 9, thus serving to hold the rails positively in position.

What is claimed is:—

A composite tie including a flat metallic reinforcing bar mounted on edge, blocks mounted at their centers upon the upper edge of the bar and integral with the bar, webs integral with and connecting the sides of the bar and the bottoms of the blocks, rail fastening flanges extending throughout the lengths of the blocks and along the outer edges thereof, there being fastener receiving openings within the blocks adjacent their inner edges and at opposite sides of the bar,

and a concrete body of the same length as the bar and having its upper surface flush with the upper edge of the bar, said bar being centrally located in the body and the
5 blocks being extended throughout the width of the body.

In testimony that I claim the foregoing as

my own, I have hereto affixed my signature in the presence of two witnesses.

BENJAMIN F. FINK.

Witnesses:

WM. H. TRUDE,
CHAS. F. BELL.

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