J. H. COX.

METALLIC RAIL TIE.

APPLICATION FILED JUNE 10, 1911.

Patented July 15, 1913.

1,067,588.

Fig. 1.

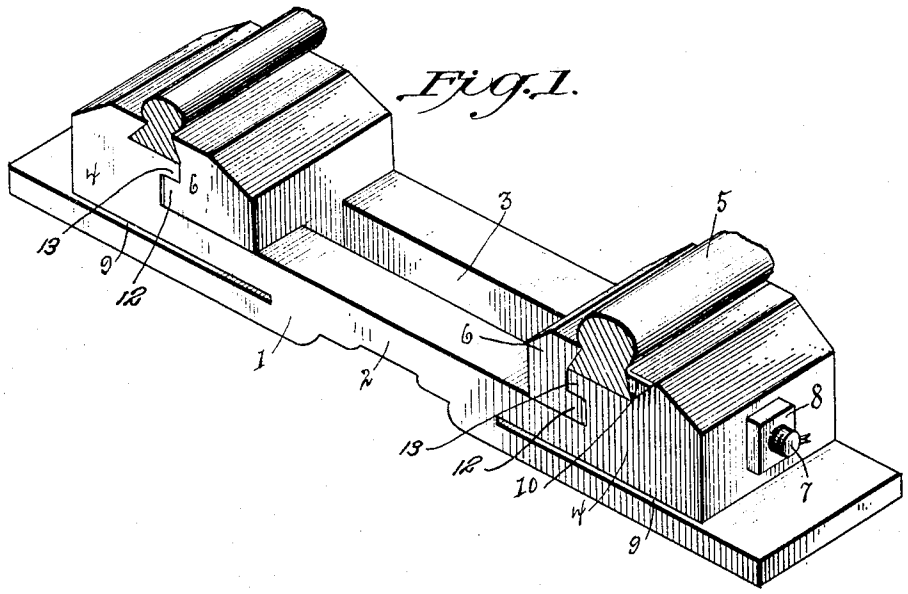
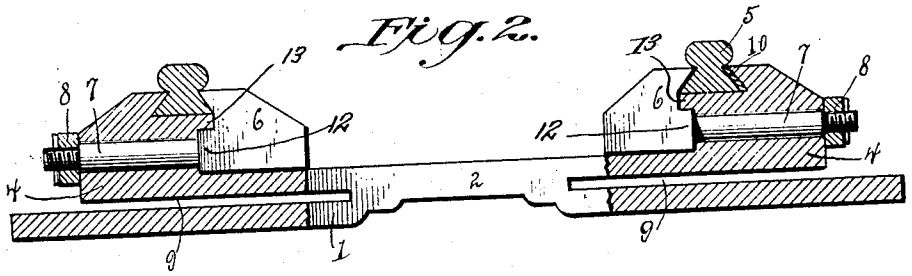


Fig. 2.



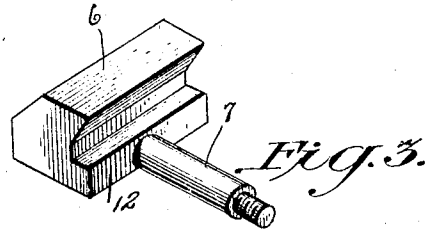


Fig. 3.

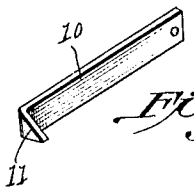


Fig. 4.

Witnesses:

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BEST AVAILABLE COPY

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METALLIC RAIL-TIE.

1,067,588. Specification of Letters Patent. Patented July 15, 1913.

Application filed June 10, 1911. Serial No. 632,418.

To all whom it may concern:

Be it known that I, JOHN H. COX, a citizen of the United States, residing at Hot Springs, in the county of Garland and State of Arkansas, have invented new and useful Improvements in Metallic Rail-Ties, of which the following is a specification.

My invention relates to railway ties and particularly to a metallic tie the construction, use, and advantages of the same being hereinafter fully set forth.

It is my object to provide a metallic tie which is designed to dispense with the need of fish plates, spikes, rail-braces, etc.

Another object of my invention is to provide a tie of this type which will be easy to disengage from a rail without disturbing the fastenings of the adjacent ties.

A further object of my invention is to provide a tie the construction of which will be simple, the parts durable and readily assembled, and the manufacture economical.

With the foregoing and other objects in view my invention consists in such details of construction and in the arrangement and combination of parts as will be hereinafter more fully described and specifically pointed out in the appended claim.

In describing my invention in detail reference will be had to the accompanying drawings in which like characters denote like or corresponding parts throughout the several views and in which,

Figure 1 is a perspective view of my invention. Fig. 2 is a longitudinal sectional view of my invention. Fig. 3 is a detail view disclosing in perspective a retaining member, and Fig. 4 is a detail to be referred to.

In carrying my invention into practice I employ a suitable tie 1 which is preferably reduced at 2 by cutting away a portion from the under surface thereof and which may be slotted at 3 as disclosed to advantage in Fig. 1, for purposes which will be subsequently pointed out.

Blocks 4 may be located approximately at the ends of the tie 1 suitably shaped to sustain rails 5 and to engage portions of the flanges thereof. Coöperating with the blocks 4 and correspondingly formed to lock the rails 5 in position, retaining members 6 are provided which may merge into bolts 7. It will be readily understood that the bolts 7 need not be made integral with the members 6, but may be cast separately and united in any well known manner. Fig. 2 discloses the retaining members 6 in position, the bolts 7 passing through the blocks 4 and secured thereat by nuts 8 or suitable fastening means.

Underneath the blocks 4 cut-out portions 9 are provided which I have designed for the purpose of producing a resiliency not afforded by the metallic tie as heretofore known.

Means is provided to prevent independent vertical movement of the retaining members 6 and blocks 4, and may consist of the overlapping, transversely extending ribs, flanges or projections 12 and 13, provided on said retaining members and blocks, respectively.

It will be fully appreciated from the above description taken in connection with the accompanying drawing that I have provided a novel, useful, and economical railway tie. The reduced portion 2 is designed to allow the tie to embed itself properly in the ground and to guard against upholding the central portion of the tie when the bed is worn away at the sides, a contingency well calculated to produce warping and final breaking of the tie, which is bound to result disastrously. This cut away portion also maintains the tie more firmly in place and prevents longitudinal movement of the same.

The slotted portion 3 has been provided with a view to dispense with useless waste of material, at the same time making the tie lighter, and affording means whereby a hold may be obtained upon the same during the operation of lifting or conveying from one place to another.

A key 10, bent at one end to form a flange 11 which is beveled so as not to project above a block 4 when in position, is provided to so space the flange of a rail 5 from the said block that when disengaging an old or broken tie the same may be removed without disturbing the position of the rail or the fastening of the adjacent ties. The key 10 is slid into place between the rail flange and block 4 as clearly disclosed in Fig. 1, the flange 11 abutting upon the side of the said block which is effective in maintaining the said key in the position specified.

From the foregoing it will be readily apparent that I have provided a tie designed with a view to economy of material and

manufacture and which in every way attains the objects heretofore set forth.

I desire it to be understood that slight changes in the construction and in the arrangement and combination of the several parts may be resorted to without departing from the spirit of my invention provided such changes fall within the scope of the appended claim.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent is:—

In a device of the character described, a body portion, rail supporting blocks formed upon said body portion, said rail supporting blocks each provided with a rail receiving recess, said body portion provided with a cut out portion, below each of said rail supporting blocks to provide a resilient support for said blocks, said rail supporting blocks each provided with a transversely extending rib, retaining members each comprising a body portion having a rail engaging projection and a transversely extending rib to engage said ribs of said blocks, bolts provided on each of said retaining members extending through said rail supporting blocks, and means to fasten said bolts whereby said retaining members and said rail supporting blocks may be fastened together in rigid relation, for the purpose specified.

JOHN H. COX.

Witnesses:
L. J. DUNNING,
R. F. GROVER.

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