

W. WORWOOD.
RAILWAY TRACK CONSTRUCTION.
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951,039.

Patented Mar. 1, 1910.

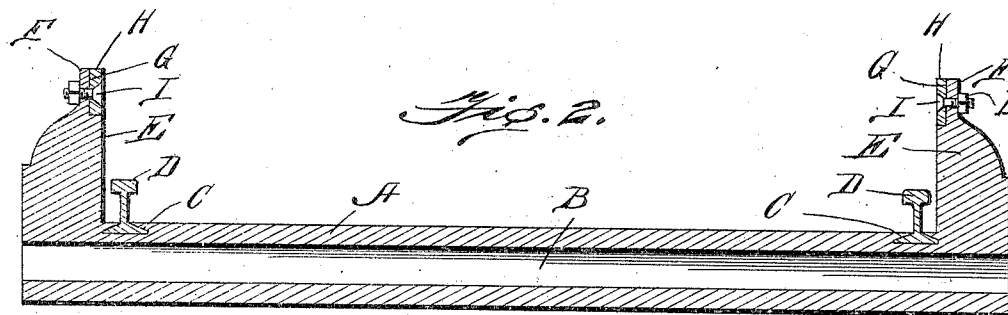
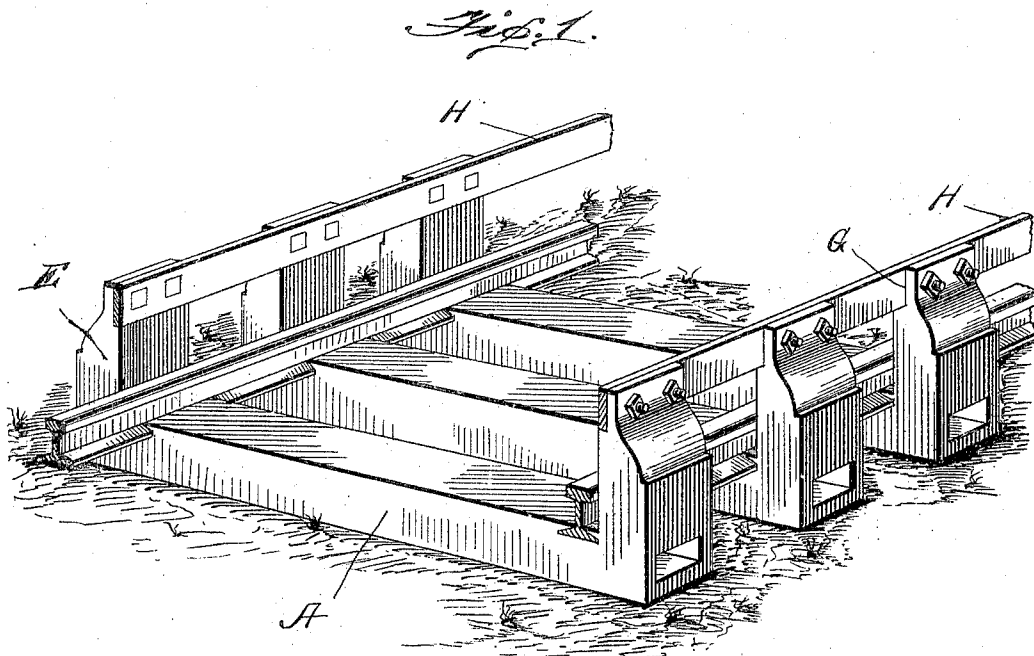
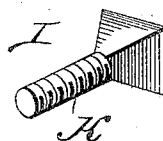


Fig. 3.



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UNITED STATES PATENT OFFICE.

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RAILWAY-TRACK CONSTRUCTION.

951,039.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM WORWOOD, a citizen of the United States, residing at Belgrade, in the county of Gallatin and State of Montana, have invented certain new and useful Improvements in Railway-Track Construction, of which the following is a specification.

My invention relates to improvements in railway track construction, and the leading object of my invention is the provision of a device which will prevent the derailing of trains and will obviate the great expense and loss of life occasioned thereby.

Another object of the invention is the provision of a device which will prevent spreading of the rails.

A further object of this invention is the provision of a railway track which will be practically indestructible and which will not be affected by floods and will not wash or float away.

With these and other hereinafter disclosed objects of a like character, to avoid the loss of life and property which is inevitable when employing the ordinary forms of track construction, in view, my invention consists in a railway tie embodying novel features of construction and combination and arrangement of parts substantially as described and as illustrated in the accompanying drawings.

Figure 1, represents a perspective view of a portion of a road bed and track constructed in accordance with and embodying the principles of my invention. Fig. 2, represents a longitudinal sectional view of my device; and Fig. 3, represents a perspective view of one of the retaining bolts.

In the drawings: the letter A, designates a railroad tie formed of iron or other suitable metal, said tie being formed with a central passage or space B, and having in its upper surface the angular grooves C in which are engaged and retained the basal flanges of the rails D.

Formed integral with the ties and extending upward from the ends thereof and the posts or supports E, said supports being formed with a solid body portion about the thickness of the tie and terminating at their upper end in a tapered portion F. The inner face of said portion F has formed therein the groove or recess G in which the safety rail H is engaged, said groove being of such depth as to receive the rail H and

permit the same to make a flush joint with the inner face of the post.

To secure the rail H firmly upon the posts E, I employ the bolts I, said bolts having a head of pyramidal shape terminating at their apexes in a shank or body portion K, said head being received in a correspondingly shaped recess in the rail H and making a flush joint with the inner face thereof, and the shank K extending through an opening in the rail and the portion F of the post and having screw threads formed thereon on which is engaged the retaining nut L which secures the bolts in place.

From the foregoing description the construction of my device will be readily understood and it will be seen that the rails are engaged and held in the groove in the tie proper and that thus it is impossible for them to spread or get out of position, and that it also renders it impossible to quickly destroy the track as is done when it is desired to wreck a train. It will be further understood that my device provides a track which will not be subject to wash-outs to any great extent, inasmuch as the passages B in the ties afford an outlet for any water striking against the road bed, the water thus escaping through said passages and expending but slight force against the bed and thus not materially damaging it.

At the same time that the position and strength of the track are provided for, I also provide for the safety of the train running thereon. The posts E, located at the ends of the ties adjacent to and near the rails and projecting thereabove for a short distance bear on their upper portions the safety rails H, and said rails are so positioned as to contact with the wheels of the train if said wheels deviate from the track in the least, and thus the rails will bear against the wheels and guide them back onto the track, it being a well-known fact that a slight pressure is sufficient to guide a body and turn it from its path.

I claim:

1. A metal tie, having a base portion with upright L-shaped ends, there being recesses formed in the tie near the angles of the L's to receive the rails, and the ends of the inner faces of the upright legs of the L's being cut away to form recesses, and guard rails secured in said recesses.

2. In a device of the character described,

the combination with the tie proper having
grooves formed in its upper face to engage
the foot of the rails, of posts formed inte-
gral with the tie and extending upward
5 therefrom at the ends thereof and provided
with recesses in their inner faces, and a
safety guide rail mounted in the recesses and
secured to the posts.

3. In combination with a metal tie having
10 a central passage and slots formed in its
upper face to engage and retain the foot of
the rails, of posts formed integral with the
tie and extending upward from the ends

thereof, said posts being formed with a
tapered upper portion and having a recess 15
formed in the inner face of said portion, a
safety rail engaged in said recess, and bolts
having pyramidical heads passing through
the rail and post for securing the rail in
position.

In testimony whereof I affix my signature, 20
in presence of two witnesses.

WILLIAM WORWOOD.

Witnesses:

GEO. J. HECK,

F. A. GIRTON.