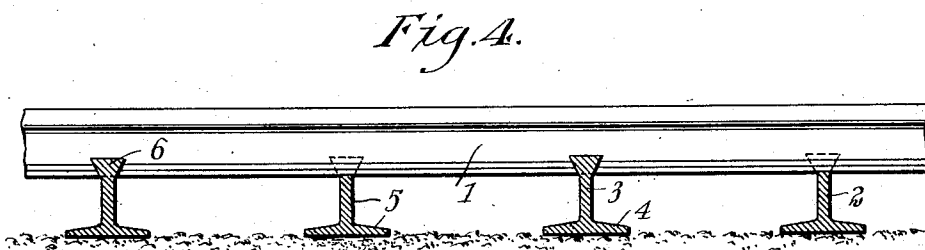
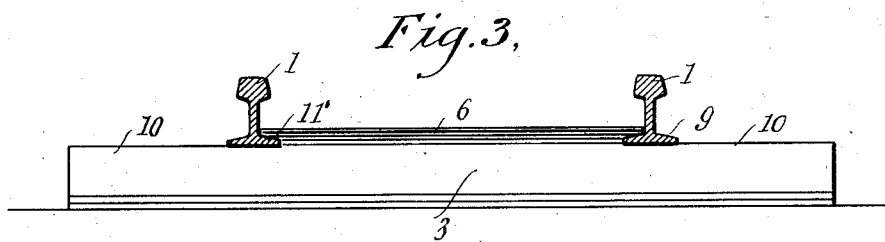
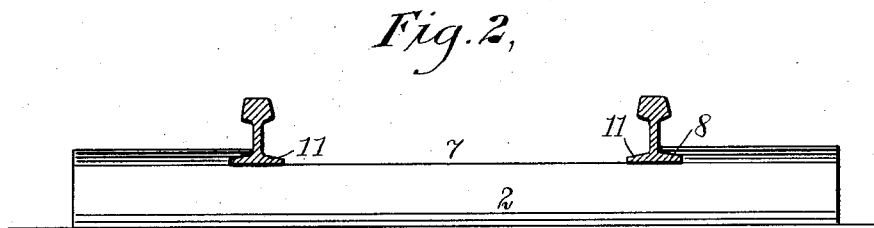
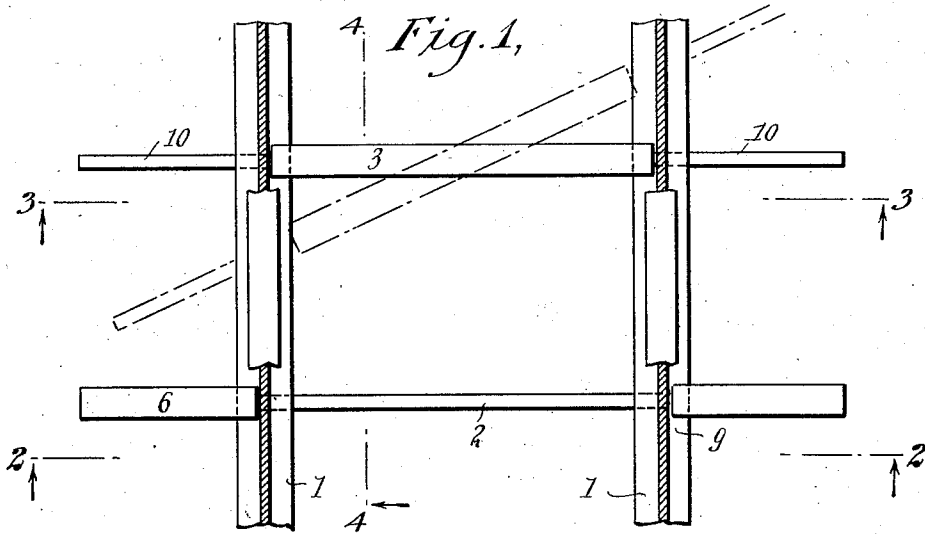


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RAILROAD TIE AND LOCK.
APPLICATION FILED DEC. 29, 1910.

1,021,661.

Patented Mar. 26, 1912.



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RAILROAD-TIE AND LOCK.

1,021,661.

Specification of Letters Patent.

Patented Mar. 26, 1912.

Application filed December 29, 1910. Serial No. 599,815.

To all whom it may concern:

Be it known that I, VERNON A. CONKLIN, a citizen of the United States, and a resident of Bayonne, in the county of Hudson and State of New Jersey, have invented a new and Improved Railroad-Tie and Lock, of which the following is a full, clear, and exact description.

My invention relates to a new and improved railroad tie and lock, and an object of my invention is to provide a device whereby railroad rails are accurately positioned apart and locked in this position.

A further object of my invention is to so construct the parts that the greatest amount of strength and rigidity is given to the different parts, with the least amount of material.

A further object of my invention is to so construct the different parts that relatively broad bearing surfaces are obtained, and the greatest amount of metal is placed where it will be of the most value.

I attain these objects by positioning along and beneath the parallel rails, a series of parallel ties arranged transversely beneath the rails, each alternate tie has a projecting rim adapted to embrace the outside of the base flange of the rails, while every other tie has a projecting rim to embrace the inner end of the lower flange of the rails.

The invention consists further in certain novel features of construction, combination and arrangement of the several parts, whereby certain important advantages are obtained, and the device rendered simpler, cheaper, and otherwise better adapted and more convenient for use than various other similar devices heretofore employed, all as will be hereinafter fully set forth.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures, and in which—

Figure 1 is a plan view looking down upon a section of track, part of the rails of which are broken away, to show the ties and their connection with the rails; Fig. 2 is a view taken in the plane indicated by the line 2—2 of Fig. 1, and looking in the direction of the arrow; Fig. 3 is a transverse sectional view similar to Fig. 2, but taken in the plane indicated by the line 3—3 of Fig. 1; Fig. 4 is a longitudinal sectional view parallel with the track, and in the

plane indicated by the line 4—4 of Fig. 1, and Fig. 5 is a side elevation of the blank tie before it is recessed.

In the drawings disclosing the preferred embodiment of my invention are shown parallel tracks 1, 1 of the common configuration, and positioned along the road bed is a series of exterior inverted T-shaped ties 2, alternating with a series of internal ties 3, upon which ties rest the rails 1, 1. These ties are placed any suitable distance apart and embedded in the material of the road bed and are anchored in position by this embedding material covering up the broad head 4 of the inverted T-shaped ties 2 and 3 which heads extend in opposite directions from the web portion 5 of the ties. The exterior ties 2 have, at their upper ends, a rib 6, which is cut away centrally of the tie, as shown at 7, a distance equal to the distance between the webs of the parallel tracks. Each of these ribs 2 has oppositely-disposed recesses 8, conforming substantially to the outer lower flange 9 of each of the rails 1. Intermediate the exterior ties 2 are placed a series of alternate interior ties 3, the configuration of which is substantially that of the exterior ties except that the rib 6 is cut away on each end, as shown at 10, in order to leave part of the rib 6 of a length equal to the distance between the webs of the parallel rails 1. This interior brace 3 has oppositely-disposed recesses 11' at the end of the rib 6, conforming substantially to the contour of the inner lower flange 11 of each of the rails 1.

In constructing a road bed making use of my improved steel railroad tie and rail lock, I position the exterior ties any suitable distance apart, and insert the bottom outside flange 9 of each of the rails in the recess 8 and force them in close contact therewith, thereby maintaining the two tracks in parallelism. Then, in between each of these exterior braces, I insert the interior braces or ties angularly across the length of the track, as shown in dotted lines in Fig. 1, and, then by rotating the braces centrally, the projecting rib 6 is forced into engagement with the interior flange of the rail 1, thereby firmly locking all of the ties to the rail, and in parallelism.

Having thus described my invention, I claim as new and desired to secure by Letters Patent:

1. In a railroad track, parallel disposed

rails, each rail having an outer and an inner base flange, and a series of parallel ties arranged transversely beneath said rails, each alternate tie embracing the outer base flange
5 of each of the rails and having a flat top surface between the rails and every other tie embracing the inner flange of each of said rails, and having a flat top surface extending outward from each rail.

10 2. In a railroad track, parallel rails, each rail having an outer and an inner base flange, and a series of parallel ties arranged transversely beneath said rails, each alternate tie being cut away centrally, the ends
15 of said cutaway portion being formed into an overhanging portion conforming sub-

stantially to the outer lower flange of each of the rails and every other tie being recessed from the rail outward to each end of the tie so as to leave part of said tie of a 20 length equal to the distance between the webs of the parallel rails, each end of said part embracing the inner lower flange of each rail.

In testimony whereof I have signed my 25 name to this specification in the presence of two subscribing witnesses.

VERNON A. CONKLIN.

Witnesses:

W. S. ORTON,

PHILIP D. ROLLHAUS.

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