

W. C. McWETHY.
RAILROAD TIE.
APPLICATION FILED JULY 31, 1908.

935,679.

Patented Oct. 5, 1909.

Fig 1.

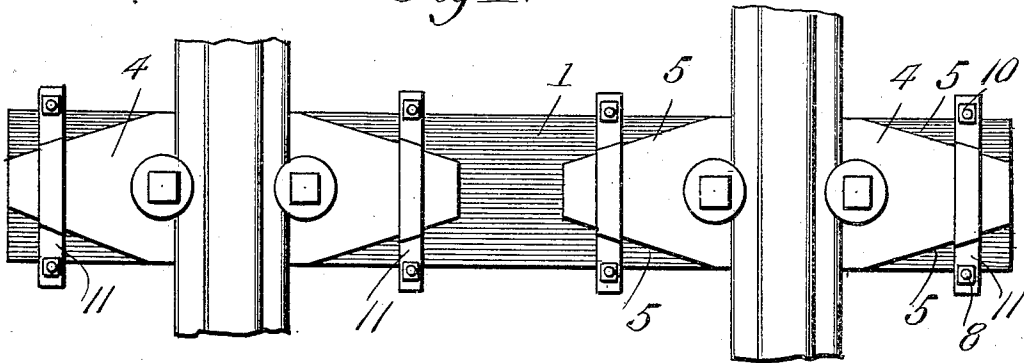


Fig 2.

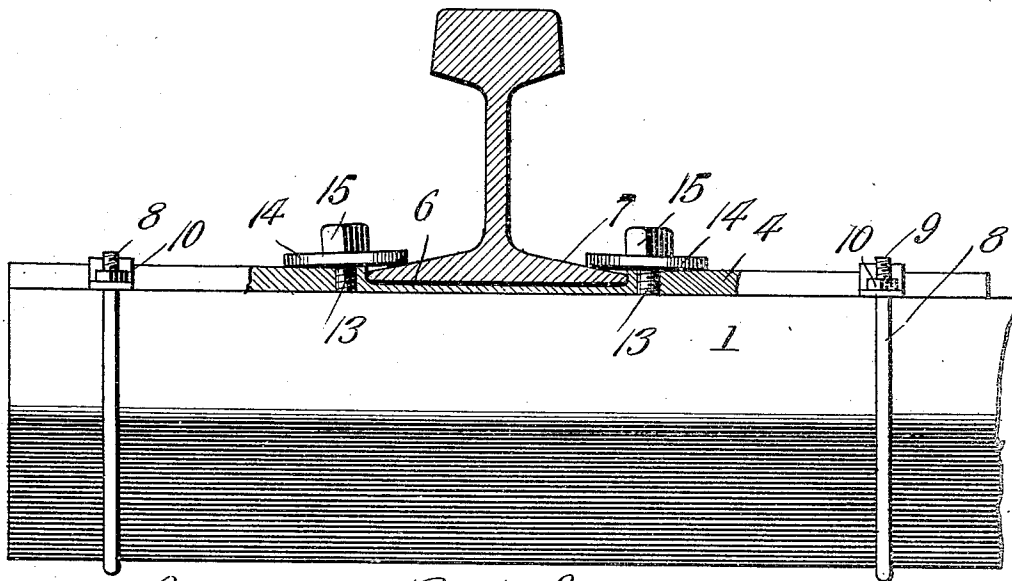
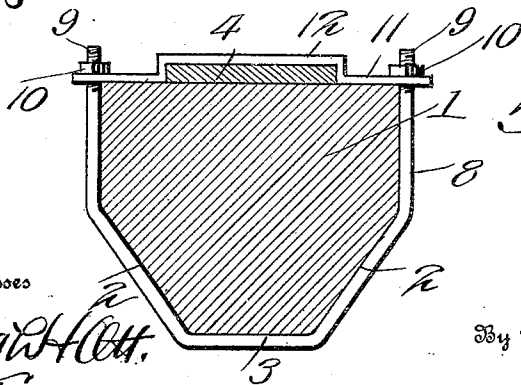


Fig 3.



Witnesses

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RAILROAD-TIE.

935,679.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM C. McWETHY, a citizen of the United States, residing at Ashton, in the county of Lee and State of Illinois, have invented new and useful Improvements in Railroad-Ties, of which the following is a specification.

This invention relates to rail ties, and one of the principal objects of the same is to provide a concrete rail tie having metallic rail chairs secured thereto, said rail chairs being adjustable toward or away from each other to conform to the grade of the road, and means being provided for setting and holding a rail in position in said chairs.

Another object of the invention is to provide a concrete rail tie and simple and efficient means for readily securing the rails thereto without requiring the services of skilled mechanics at any time and to be quick and easy to assemble.

These and other objects may be attained by means of the construction illustrated in the accompanying drawing, in which:—

Figure 1 is a top plan view of a rail tie and showing a pair of rails secured thereto, the construction and arrangement being in accordance with my invention. Fig. 2 is an enlarged side elevation of the tie and showing the rail chair partially in section and the rails secured thereto, the latter being in section. Fig. 3 is a transverse sectional view of the tie and chair secured thereto.

Referring to the drawing, the numeral 1 designates the tie which is preferably formed of concrete or other moldable material such as clay, mixed with cement. As shown, the tie has a flat upper face, while the lower portion of the tie has inclined sides 2 and a comparatively narrow bottom 3. The result of the structure is that the ballast may be packed around the tie to hold it firmly in place in the road bed. Secured to the top or face of the tie are the rail chairs 4, each comprising a plate the opposite ends of which have converging sides 5 and a recess 6 extending centrally across the plate and forming a seat or chair for the base flange 7 of the rail.

The rail chairs 4 are held in adjusted positions upon the tie 1 by means of yokes or stirrups 8 which extend around the tie and having their ends threaded as at 9 for the nuts 10, said threaded ends passing through metal keepers 11 which fit over the ends of the rail chairs and are provided with a bridge portion 12 which spans the rail chairs and conforms in contour to the inclined sides 5 thereof. These yokes may be adjusted at any place on the tie to conform to the required gage of the road and can be readily secured in place by means of the nuts 10. The rails are secured in the chair seats 6 by means of suitable bolts 13 which fit in threaded holes extending through the rail chairs at points adjacent to the opposite sides of the base flange of the rail, said bolts being provided with suitable washers or integral disks 14 which engage the top of the base flange 7 of the rail and hold the latter firmly in place in the seat. The heads 15 of the bolts 13 are square for the application of a wrench.

From the foregoing, it will be obvious that my rail tie and rail securing device are of simple construction, are particularly durable, can be quickly assembled and placed in position for use without skilled labor, that the rails are firmly connected to the ties in the manner to prevent either sinking, spreading or displacement.

I claim:—

A concrete rail tie having a flat upper surface, rail chairs secured to said tie by means of stirrups passing around the tie, and keepers through which the ends of said stirrups pass, said chairs having recesses therein for the base flanges of the rails, and bolts having washers under the heads thereof for engaging the base flanges of the rail.

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

WILLIAM C. McWETHY.

Witnesses:

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