J. T. ANDREW.

CROSS TIE.

APPLICATION FILED SEPT. 16, 1912.

1,047,876. Patented Dec. 17, 1912.

Fig. 2.

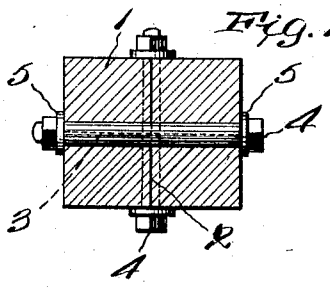


Fig. 1.

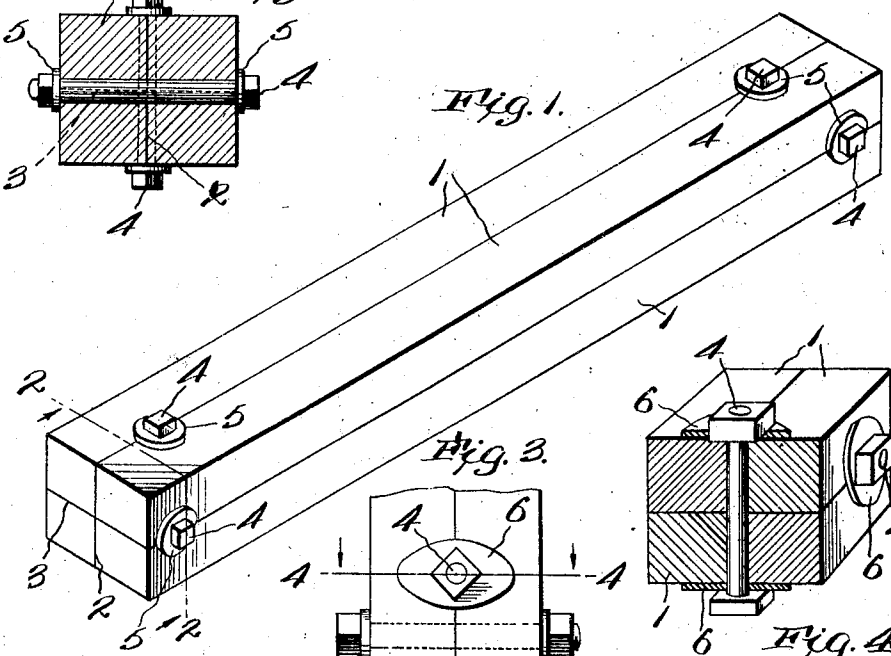
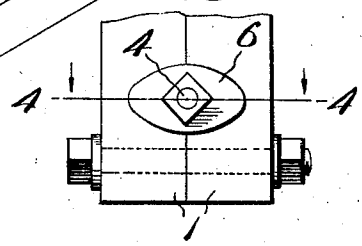


Fig. 3.



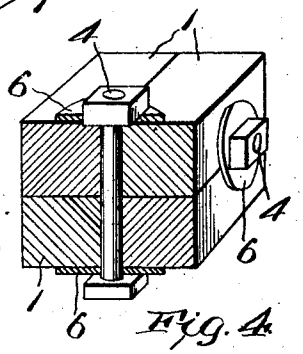


Fig. 4.

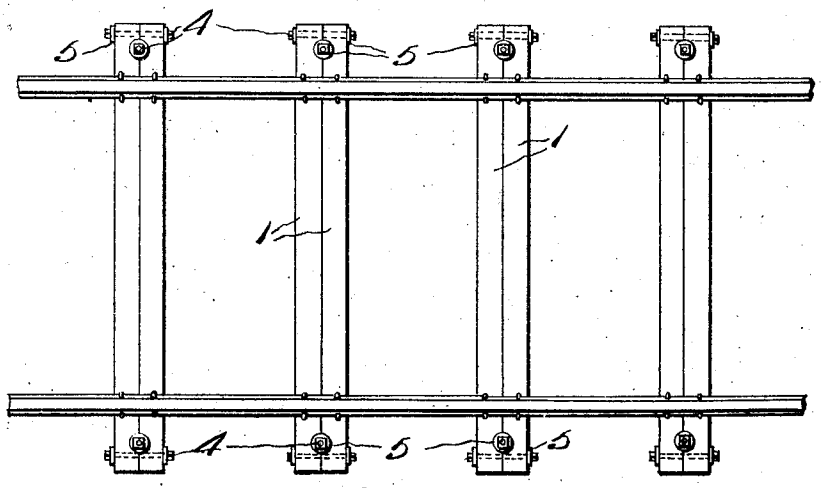


Fig. 5.

Witnesses
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UNITED STATES PATENT OFFICE.

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CROSS-TIE.

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To all whom it may concern:

Be it known that I, JAMES T. ANDREW, a citizen of the United States, residing at Montgomery, in the county of Montgomery and State of Alabama, have invented certain new and useful Improvements in Cross-Ties; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in railway ties and similar articles, and it consists in the constructions, combinations and arrangements herein described and claimed.

An object of my invention is to provide a strong and durable cross tie constructed of a plurality of sections of timber of less size than is at present available for ties, thereby providing an inexpensive construction, in which relatively small timbers can be efficiently utilized.

A further object of my invention is to provide an improved cross tie constructed of a plurality of sections of timber, and in which any section can be independently replaced by a new section, thereby enabling the tie to be repaired and local defects or deteriorations removed without discarding the entire tie.

A further object of my invention is to provide an improved cross tie constructed of a plurality of sections of timber securely clamped together, thereby providing an improved tie which can be thoroughly and uniformly creosoted, vulcanized, or otherwise treated, by subjecting the several sections to the desired treatment before clamping them together.

In the accompanying drawings forming a part of this application, and in which similar reference symbols indicate corresponding parts in the several views:—Figure 1 is a perspective view, illustrating one embodiment of my invention; Fig. 2 is a section on the line 2—2 of Fig. 1; Fig. 3 is a fragmentary plan of one end of a tie showing a modified form of clamping washer; Fig. 4 is a section on the line 4—4 of Fig. 3; and Fig. 5 is a plan view of a section of track employing my improved tie.

Referring to the drawing, 1 indicates sections of timber extending longitudinally throughout the length of the tie, and abutting along common vertical planes 2 and horizontal planes 3. The several longitudinally-extending sections 1 are firmly clamped together by keepers 4 driven transversely into the abutting faces of said sections and engaging the outer faces of the latter. I have shown said keepers comprising bolts driven transversely through the tie along the vertical and horizontal abutting faces of the sections 1, and provided with washers 5 clamped firmly against the outer faces of said sections.

Figs. 3 and 4 illustrate a slight modification, in which oval or elongated clamping members 6 are substituted for the washers 5, for overlapping the outer faces of the tie sections 1 to a greater extent. If desired, the washers 5 and clamping members 6 may be provided with sharp teeth or projections on their inner faces for engaging the outer faces of the tie sections.

From the above description, it will be understood that my invention provides a strong and durable cross tie which can be inexpensively constructed of timber of less size than is at present available for ties, and in which any of the sections can be independently replaced by new sections for removing local defects without discarding the entire tie.

I claim:—

1. A cross tie comprising a group of abutting, longitudinally-extending sections, and means for tying said sections together, comprising keepers driven transversely into the abutting faces of said sections.

2. A cross tie comprising a group of abutting, longitudinally-extending sections, and bolts driven transversely into the abutting faces of said sections and engaging the outer faces of the latter.

3. A cross tie comprising upper and lower pairs of longitudinally-extending sections abutting along common vertical and longitudinal planes, and means for tying said sections together, comprising keepers driven transversely into the vertical and horizontal abutting faces of said sections.

4. A cross tie comprising upper and lower pairs of longitudinally-extending sections abutting along common vertical and horizontal planes, and bolts driven transversely through such vertical and horizontal abutting faces and engaging the outer faces of the tie.

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

JAMES T. ANDREW.

Witnesses:
S. A. TYSON,
J. H. NORTON.