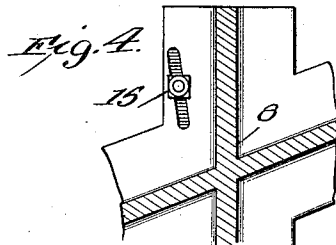
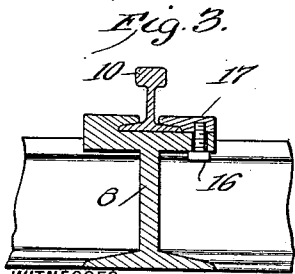
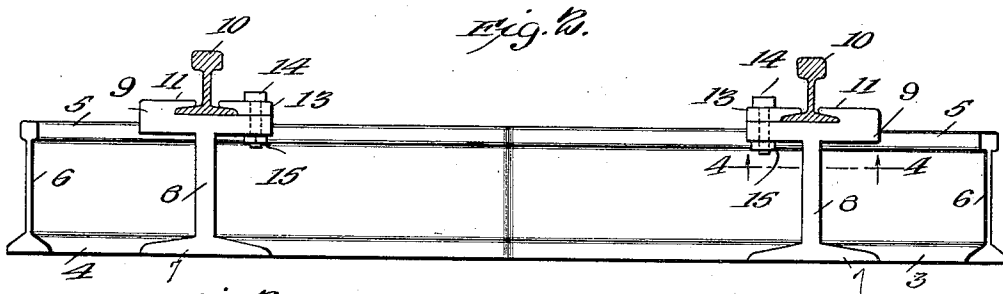
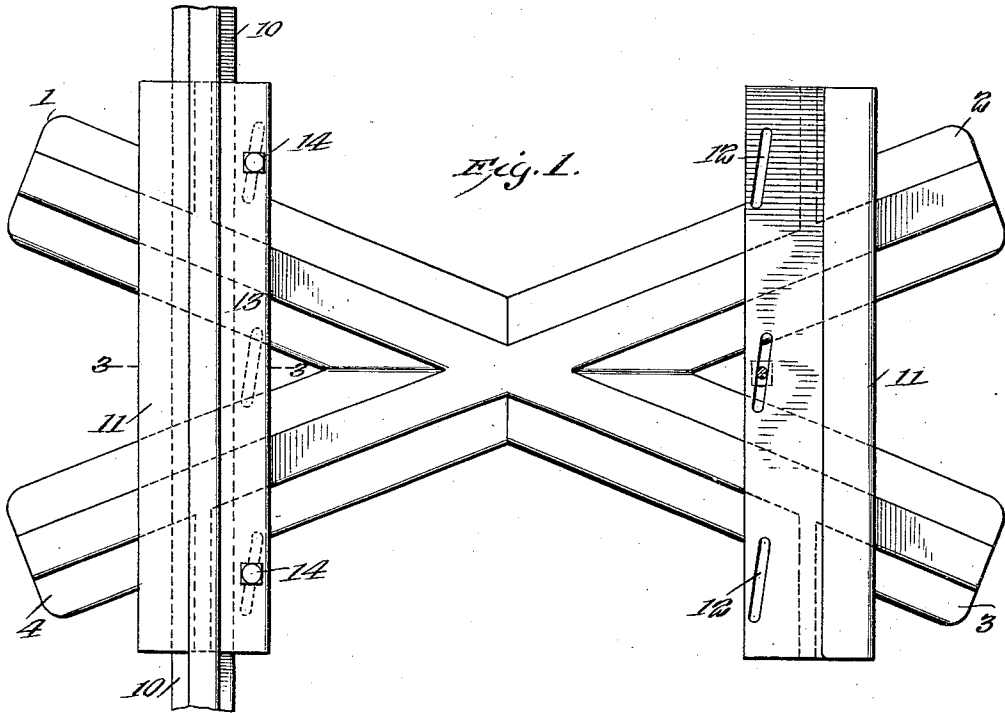


C. T. KILGORE.
STANDARD METAL RAILROAD CROSS TIE.
APPLICATION FILED OCT. 30, 1911.

1,017,558.

Patented Feb. 13, 1912.



WITNESSES
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UNITED STATES PATENT OFFICE.

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JOHN P. SMITH, OF HOT SPRINGS, ARKANSAS.

STANDARD METAL RAILROAD CROSS-TIE.

1,017,558.

Specification of Letters Patent.

Patented Feb. 13, 1912.

Application filed October 30, 1911. Serial No. 657,519.

To all whom it may concern:

Be it known that I, CHARLES T. KILGORE, a citizen of the United States, and a resident of Hot Springs, county of Garland, and State of Arkansas, have invented certain Improvements in Standard Metal Railroad Cross-Ties, of which the following is a specification.

My invention is an improvement in cross ties, and consists in certain novel constructions, and combinations of parts, hereinafter described and claimed.

In the drawings: Figure 1 is a plan view of the improvement; Fig. 2 is a side view; Fig. 3 is a section on the line 3—3 of Fig. 1; and, Fig. 4 is a section on the line 4—4 of Fig. 2.

In the present embodiment of the invention, the tie is substantially X-shaped or cross-shaped, consisting of arms 1—2—3—and 4, connected at their inner ends and arranged in pairs, the members of each pair extending in the opposite direction from the members of the other pair, and also in the opposite direction from each other. Each arm is substantially T-shaped in cross section, consisting of a tread 5, a web 6, and a base flange 7. Each pair of arms is also connected by a cross arm 8, of the same general shape as the arms, but having a tread widened as indicated at 9, to form a seat for the rail 10. The said seat 9 is provided at its outer side with an overlying flange 11, and at the opposite side with a plurality of longitudinal slots 12 all of which slots are inclined in the same direction, with respect to the adjacent edge of flange 11.

A holding plate 13 engages the inner side of the base flange of the rail, and the said plate is held in place by a bolt 14, passing through the plate and through a slot 12. Each bolt is engaged by a nut 15 below the tread 9 of the arm 8. If desired, the plates 13 may be held in place by cap screws 16, (Fig. 3) passing through the slots 12, and engaging threaded recesses or openings 17 in the under face of the plate. It will be evident that the plate 13 may be adjusted toward or from the flange 11, by means of slots 12, that is by engaging bolts 14, or screws 16, with different portions of the said slots. It will be noticed that the edge of plate 13 is recessed or grooved on its lower face, to fit over the base flange of the rail.

The tie is spread over a considerable space for the material used, so that the tie is very stable and cannot rock or twist. Neither is there any creeping of the tie with the rail. Rails of different sized bases may be used with the tie, since the slots 12 permit considerable adjustment of plates 13.

I claim:

1. A cross tie of metal and of substantially X-shape, a cross arm connecting the members of each pair of arms, each arm being of T-shape, and having a tread a web and a base, the tread of the cross arms being of greater width for holding the rail and having at its outer edge an overlying flange for engaging over the rail base, the said tread having a plurality of slots at its inner edge, said slots being inclined with respect to the flange and in the same direction, a holding plate having openings for registering with the slots, and bolts passing through the openings and the slots.

2. A cross tie of metal and of substantially X-shape, a cross arm connecting the members of each pair of arms, each arm being of T-shape, and having a tread a web and a base, the tread of the cross arms being of greater width for holding the rail and having at its outer edge an overlying flange for engaging over the rail base, the said tread having a plurality of slots at its inner edge, said slots being inclined with respect to the flange and in the same direction, a holding plate for the inner side of each rail, and means passing through the slots and engaging the plates for holding them in position.

3. A cross tie of metal and of substantially X-shape, a cross arm connecting the members of each pair of arms, each arm being of T-shape, and having a tread a web and a base, the tread of the cross arms being of greater width for holding the rail and having at its outer edge an overlying flange for engaging over the said base, and means in connection with each of the said treads for holding the rail thereon.

4. A cross tie of metal and of substantially X-shape, a cross arm connecting each adjacent pair of arms of the tie, said cross arms having wide flat upper faces for receiving the rails, and each face having an overlying flange at its outer side for engaging over the outer side of the rail base, a holding plate on the inner side of each

face for engaging the inner edge of the rail base, and means for adjustably connecting each holding plate to the cross arm, said means comprising slots in the said face inclined in the same direction with respect to the flange, and bolts passing through the slots and engaging the plates.

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10 5. A cross tie of metal and of substantially X-shape, a cross arm connecting each adjacent pair of arms of the tie, said cross arms having wide flat upper faces for re-

ceiving the rails, and each face having an overlying flange at its outer side for engaging over the outer side of the rail base, a holding plate on the inner side of each face for engaging the inner edge of the rail base, and means for adjustably connecting each holding plate to the cross arm. 15

CHARLES T. KILGORE.

Witnesses:

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