D. B. POSTLETHWAIT.

METALLIC TIE AND RAIL FASTENER.

APPLICATION FILED JULY 26, 1910.

973,459. Patented Oct. 18, 1910.

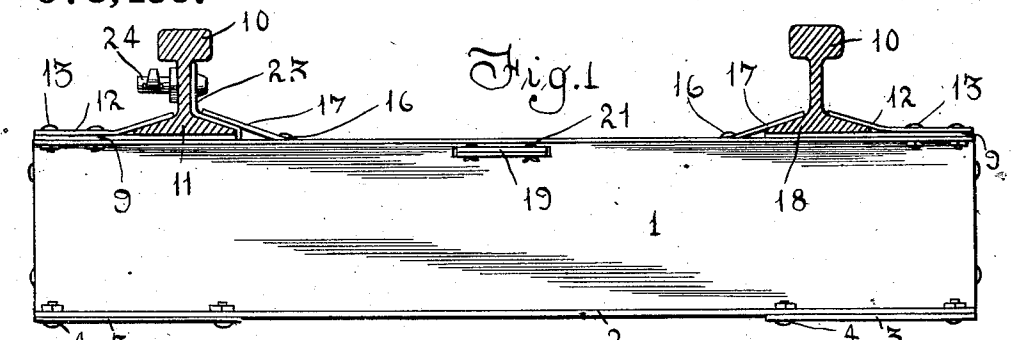

Fig. 1

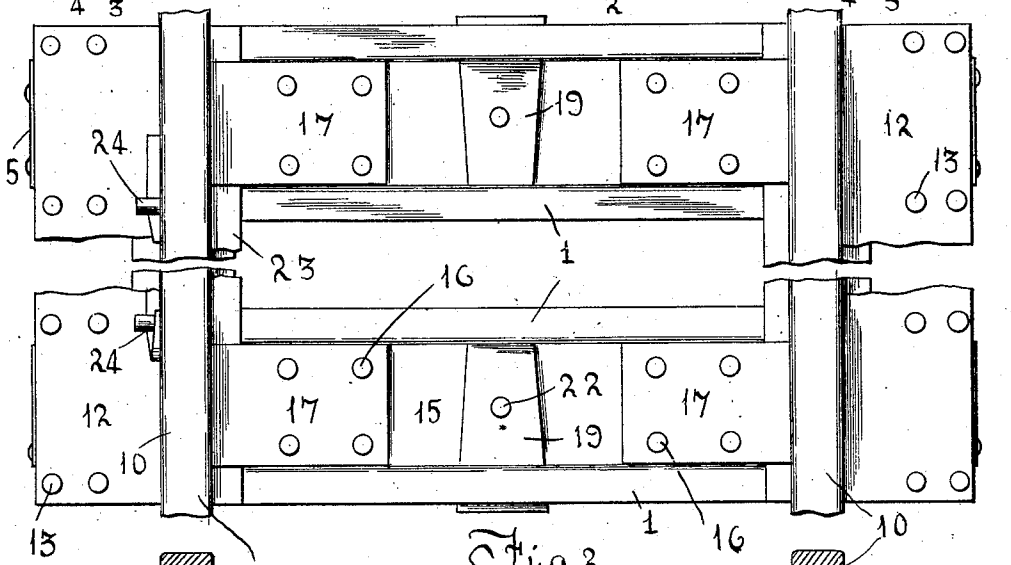

Fig. 2

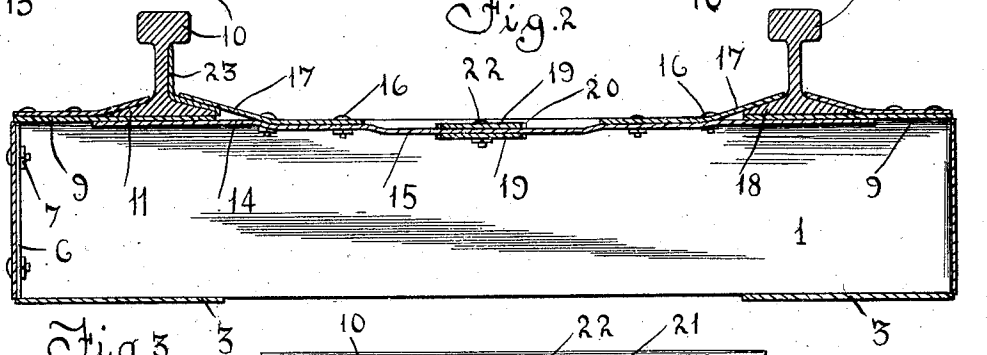

Fig. 3

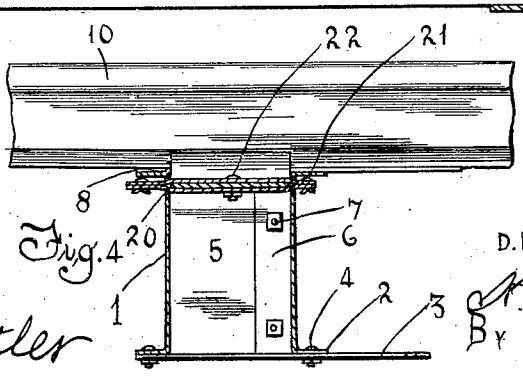

Fig. 4

WITNESSES

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METALLIC TIE AND RAIL-FASTENER.

973,459. Specification of Letters Patent. **Patented Oct. 18, 1910.**

Application filed July 26, 1910. Serial No. 573,941.

To all whom it may concern:

Be it known that I, DAVID B. POSTLETHWAIT, a citizen of the United States of America, residing at Onondaga, in the county of Jefferson and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Ties and Rail-Fasteners, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to metallic ties and rail fasteners, and the objects of my invention are to provide a strong and durable metallic tie for supporting rails, and to furnish a metallic tie with simple and effective means for retaining the rails thereon.

Other objects of the invention are to provide a metallic tie that can be easily handled and anchored in a roadbed, and to furnish a tie with a rail fastener that will allow for the expansion and contraction of the rails mounted thereon.

These and such other objects as may hereinafter appear are attained by the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing forming a part of this specification, wherein there is illustrated a preferred embodiment of the invention, but it is to be understood that the structural elements thereof are susceptible to such changes as fall within the scope of the appended claims.

In the drawing:—Figure 1 is an elevation of the tie. Fig. 2 is a plan of the same. Fig. 3 is a longitudinal sectional view of the tie, and Fig. 4 is a cross sectional view of a portion of the same.

A tie in accordance with this invention comprises four longitudinal and vertical channel beams 1 arranged in sets with the bottom flanges 2 of the beams connected at the ends thereof by bed-plates 3, said bed-plates being riveted or otherwise connected to the flanges 2, as at 4. The ends of the beams 1 are bent inwardly to provide end flanges 5 and 6, these flanges being bolted or otherwise secured together, as at 7 to close the ends of the tie. It is preferable to make the flanges 5 of a greater width than the flanges 6 whereby the bolts or fastening means 7 can be arranged adjacent to one of the beams.

Arranged upon the upper flanges 8 of the beams 1 are rail plates 9, said plates being arranged at the ends of the beams. These plates support rails 10 and the outer base flanges 11 of said rails are retained in place by a fastener plate 12 riveted or otherwise secured, as at 13 to the rail plate 9, said fastener plate extending upwardly upon the outer base flanges 11 of the rails.

Arranged longitudinally between the upper edges of the beams 1 are tie plates 14 having the central portions thereof depressed, as at 15 with the ends of said plates extending under the rail plates 9. Bolted or otherwise connected to said tie plates, as at 16 are fastener plates 17 adapted to extend over the inner base flanges 18 of the rails 10. The tie plates are held in position between the beams 1 by transversely arranged wedges 19 arranged above and below the tie plates and extending through slots 20 provided therefor in the beams 1. The ends of the wedges 19 are riveted or otherwise connected together, as at 21 and the tie plates 14 are bolted or otherwise connected to the wedges, as at 22.

When two rails are to be joined upon the tie, it is preferable to make the joint between the sets of beams 1, and this is accomplished by using an inner splice bar 23 which is bolted or otherwise connected to the confronting ends of the rails 10, as at 24.

From the foregoing it is apparent that the tie is constructed of standard material and that the parts thereof can be easily and quickly assembled to provide a durable structure easily tamped and anchored in a roadbed.

What I claim is:—

1. A metallic tie comprising sets of longitudinal channel beams, flanges carried by the ends thereof and connected together to close the ends of each set of beams, tie plates connected to the under side of the sets of beams at the ends thereof, rail plates connected to the upper sides of said sets of beams at the ends thereof and adapted to support rails, fastener plates connected to said rail plates and adapted to engage the outer sides of rails, tie plates arranged between the beams of each set of beams and extending under said rail plates, fastener plates connected to said tie plates and adapted to engage the inner sides of rails, and wedges arranged transversely of each set of beams and adapted to hold said tie plates in position, substantially as described.

2. A metallic tie comprising sets of channel beams, bed-plates connecting the under sides of said beams at the ends thereof, rail plates connecting the upper sides of said beams at the ends thereof and adapted to support rails, fastener plates connected to said rail plates and adapted to engage the outer sides of rails, tie plates arranged longitudinally between the beams of each set and extending under said rail plates, fastener plates connected to said tie plates and adapted to engage the inner sides of rails, wedges arranged above and below said tie plates and extending through each set of beams, means for connecting the ends of said wedges together, and means for connecting said wedges to said tie plates.

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

DAVID B. POSTLETHWAIT.

Witnesses:
PATRICK SWEENEY,
H. M. MEANS.