

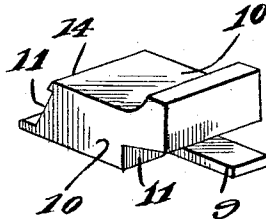
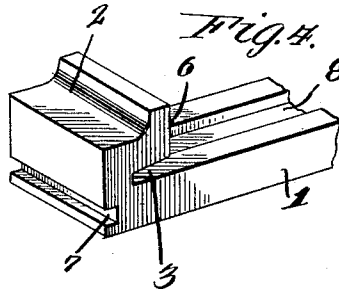
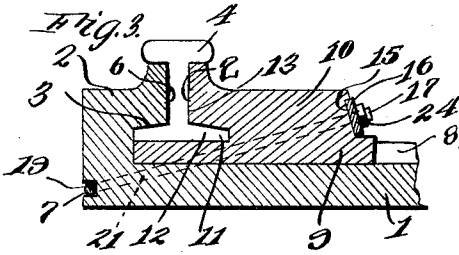
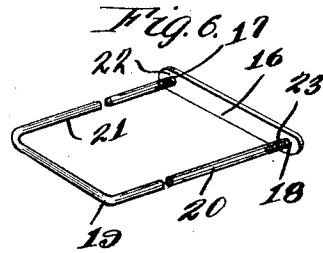
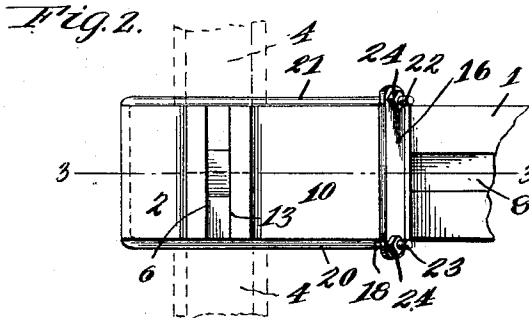
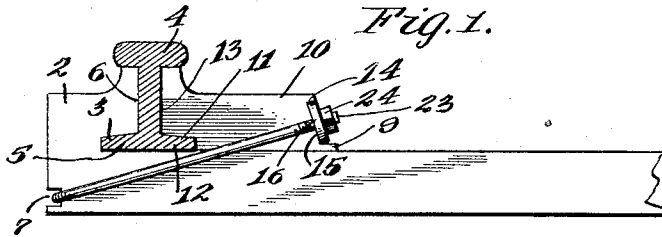
G. TAYLOR.

METALLIC RAILWAY TIE AND MEANS FOR SECURING A RAIL TO THE SAME.

APPLICATION FILED MAR. 19, 1913.

1,113,506.

Patented Oct. 13, 1914.



WITNESSES
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METALLIC RAILWAY-TIE AND MEANS FOR SECURING A RAIL TO THE SAME.

1,113,506.

Specification of Letters Patent.

Patented Oct. 13, 1914.

Application filed March 19, 1913. Serial No. 755,441.

To all whom it may concern:

Be it known that I, GUS TAYLOR, a citizen of the United States, residing at Turlock, in the county of Stanislaus and State of California, have invented certain new and useful Improvements in Metallic Railway-Ties and Means for Securing a Rail to the Same, of which the following is a specification.

This invention relates to a combined metallic rail tie and means for securing a rail to the same, and has for its primary object the provision of a device of this nature wherein is embodied, simplicity of construction, durability and practical and efficient means for engaging a rail whereby spreading and longitudinal creeping of the rail would be prevented and one which will permit of the contraction and expansion of the metallic rails, due to the differences in atmospheric temperature, thus avoiding the buckling of rails which is occasioned by the majority of ties and rail fasteners of this nature.

A further object of this invention is the provision of a means for securing a rail to the tie wherein no spikes or similar fastening means are employed and one which is so constructed that the replacing of a worn rail will necessitate only a slight amount of labor as compared with that necessary in the present manner of securing rails to ties.

A still further object of this invention is to construct a combination metallic rail tie and means for fastening a rail thereto in such a manner that practically all repair work upon the same will be eliminated.

With the foregoing and other objects in view, this invention consists in such novel features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawings and claimed.

In describing the invention in detail reference will be had to the accompanying drawings wherein like characters of reference designate like or corresponding parts throughout the several views, in which,

Figure 1 is a fragmentary view of one end of the improved metallic rail tie and means for securing a rail thereto showing a rail in section; Fig. 2 is a top plan view of the tie showing a rail in dotted lines; Fig. 3 is a sectional view taken on the line 3-3 of Fig. 2; Fig. 4 is a detail perspective view of one end of the tie; Fig. 5 is a detail perspective view of part of the rail fastening means;

and Fig. 6 is also a detail perspective view of another part of the means for securely holding the rail in its place.

In describing the drawings the numeral 1 designates a railway tie which is constructed of any suitable metal such as cast iron, wrought iron, steel or the like, and which has its ends provided with upstanding projections 2. The upstanding projections 2 are cut out at 3 so as to conform with one side of the base of an ordinary rail 4 which is used in constructing a track for steam, electric or similar railways. When the rail 4 is placed so that one side 5 of the base will be seated in the groove 3 in the upstanding projection 2 the inner edge 6 of the upstanding projection 2 will engage one surface of the web of the rail as is clearly shown in Figs. 1 and 3 of the drawings. The ends of the ties 1 are also provided with laterally extending grooves 7 the purpose of which will be hereinafter more fully described. Extending longitudinally of the metallic tie are grooves 8 which receive the projections 9 which are formed integral with the blocks 10. The projections 9 extend inwardly from the inner end of the blocks 10 and are seated beneath the base of the rail 4. Adjacent the projections 9 are recesses 11 which receive the side 12 of the base plate of the rail 4 and the ends 13 of the blocks 10 engage the side of the web of the rail 4 and tend to hold the rail 4 securely against the upstanding projection 2 of the tie 1. The inner ends 14 of the blocks 10 slant outwardly toward the base of the same and are provided with transverse recesses therein. The inner edges 6 of the upstanding projection 2 and the side 13 of the blocks 10, engaging the rail 4 as has been heretofore described and shown in the drawings will eliminate the use of fish plates or other suitable means for joining the ends of the two rails. The recesses 15 receive plates 16 which have two openings 17 and 18 near their ends.

Mounted in the grooves 7 are substantially U-shaped members 19, the sides or legs 20 and 21 of which engage the longitudinal sides of the metallic tie 1 and the blocks 10 and which also have their ends 22 and 23 provided with screw-threads. The ends 22 and 23 of the legs 20 and 21 of the substantially U-shaped members 19 are inserted through the openings 17 and 18 of the plate 16 and nuts 24 are secured upon the threads

and securely hold the blocks 10 adjacent the rail 4 as is shown in both Figs. 1 and 3 of of the drawings.

To replace a worn rail all that is necessary is simply the removal of the nuts 24 from the ends 22 and 23 of the substantially U-shaped member 19 and move the member 19 so that the same will not contact with the longitudinal sides of the blocks 10 thereby releasing the rail 4 and permitting the removal of the same.

In practical fields certain minor features of construction may necessitate alterations to which the patentee is entitled provided such alterations are comprehended within the scope of what is claimed.

What is claimed is:—

In a rail tie structure, a tie having a longitudinal groove formed in its upper surface and transverse grooves formed in its ends near the lower edge thereof, upstanding projections formed upon the ends of said tie and having their inner sides shaped to lie in abutting relation to one side of a T-rail, blocks having depending longitudinal pro-

jections formed upon their under surface, said projections extending beyond the ends of said blocks and lying in contact with the under surface of the base of a T-rail and seated in said longitudinally extending grooves to prevent lateral movement of the blocks, U-shaped members having their head portions seated in said transverse grooves, the legs of said U-shaped members extending upwardly diagonally across the sides of said tie and said blocks, plates mounted upon the ends of said legs and engaging the inner ends of said blocks, said plates adjustably held upon the ends of said legs for securely holding said blocks in binding engagement with the T-rail and said tie for preventing movement of the blocks and the T-rail.

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

GUS TAYLOR.

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."