

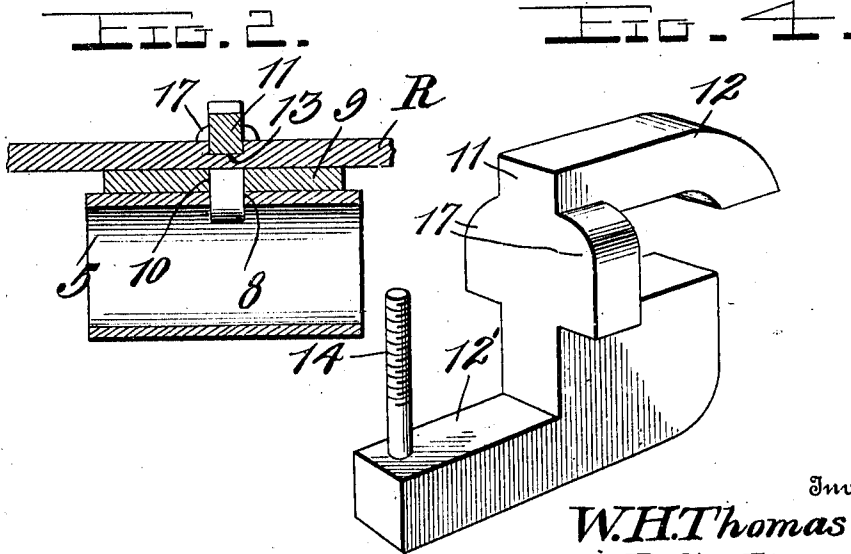
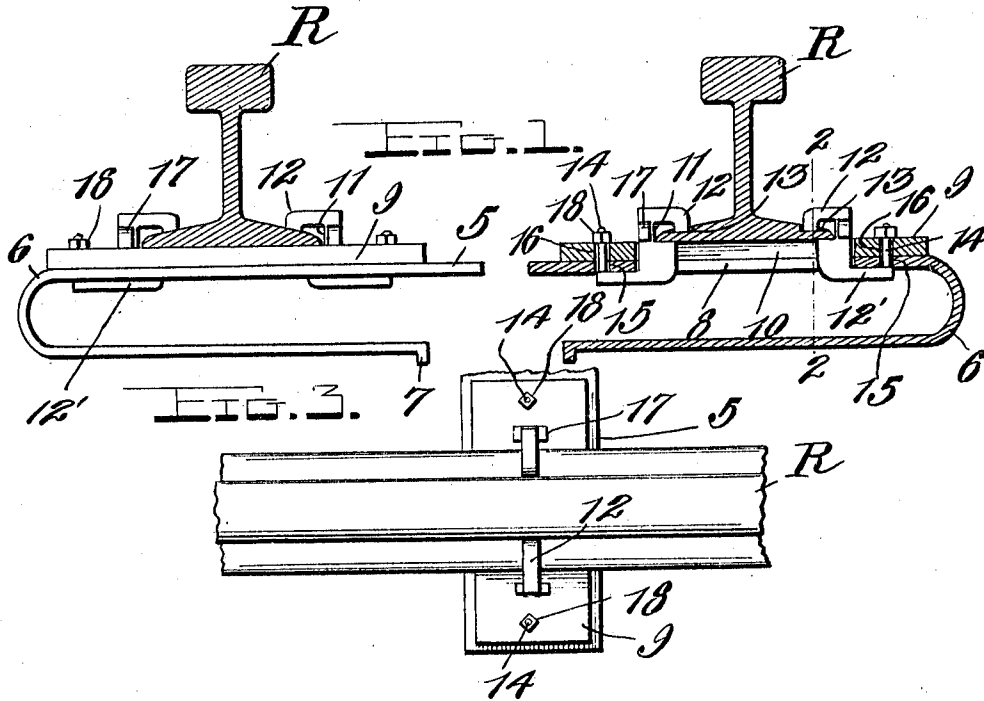
W. H. THOMAS & R. C. THOMPSON.

RAIL TIE AND FASTENER.

APPLICATION FILED JAN. 9, 1911.

988,408.

Patented Apr. 4, 1911.



Witnesses

Chas. L. Griesbauer.
J. F. Peeler.

Inventors
W. H. Thomas and
R. C. Thompson,
By Watson E. Coleman,
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM HENRY THOMAS AND RICHARD CHALMERS THOMPSON, OF McCrory, ARKANSAS.

RAIL TIE AND FASTENER.

988,408.

Specification of Letters Patent.

Patented Apr. 4, 1911.

Application filed January 9, 1911. Serial No. 601,691.

To all whom it may concern:

Be it known that we, WILLIAM HENRY THOMAS and RICHARD CHALMERS THOMPSON, citizens of the United States, residing at McCrory, in the county of Woodruff and State of Arkansas, have invented certain new and useful Improvements in Rail Ties and Fasteners, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to rail fasteners and has for its object to provide a new and novel device whereby the rail may be securely fastened upon the supporting ties.

Another object of the invention is to provide a fastener of such construction that the rail may be easily and quickly inserted in position, the use of the usual spikes being eliminated.

A further object of our invention resides in the provision of a novel form of metallic rail tie whereby liability of the tie and rails which are supported thereby sliding upon the bed or foundation is obviated.

With the above and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a rail tie with the rails arranged thereon, one end of said tie being shown in section to more clearly illustrate our improved clamp; Fig. 2 is a section taken on the line 2—2 of Fig. 1; Fig. 3 is a top plan view; and Fig. 4 is a detail perspective view of one of the clamping members.

Referring in detail to the drawing 5 designates the rail supporting tie which is constructed from a heavy steel plate bent upon itself adjacent to each end as indicated at 6. In placing the tie in position the intermediate portion thereof is disposed uppermost, the bent end portions being positioned beneath the surface of the ground and having their extremities flanged as indicated at 7 to be securely embedded in the soil, cement or other ballasting material and effectually preventing any longitudinal movement of the tie. The tie is also adapted to be used upon trestles and the like, the flanged extremity 7 thereof engaging over stringers or other portions of the frame work. The body of the tie is longitudinally

slotted at each end as indicated at 8 and upon the ends of the tie the base boards 9 are arranged upon which the rails directly rest. These base boards are also provided with a longitudinal slot 10 which aligns with the slot in the tie. The slots 8 and 10 are of greater length than the width of the base flange of the rail R as will be noted from reference to Fig. 1. Through these end portions of the slots the fastening devices which will now be described are disposed.

The fasteners each comprise a heavy steel bar having a vertical central body portion 11 and the laterally extending end portions 12 and 12'. These end portions extend in opposite directions, and the portion 12 has its end downwardly curved for engagement upon the base flange of the rail. The rail flange is provided with a shallow recess 13 to receive the extremity of the fastener. The other end of the fastener which extends in the opposite direction to the portion 12 has formed thereon a threaded bolt 14 which is adapted to be projected through aligned openings 15 and 16 respectively in the tie plate 5 and the base board 9. The laterally extending portion 12' of the fastener which is disposed beneath the tie plate and beyond the end of the slot therein also extends in the opposite direction beyond the vertical portion 11 of the fastener and into the slots 8 and 10 to engage with the under side of the base flange of the rail. Upon the upper end of the body portion 11 of the fastener and on the opposite faces thereof, lugs 17 are formed for engagement upon the upper surface of the base board 9. Nuts 18 are threaded upon the upper ends of the bolt 14 and when adjusted thereon into close engagement with the base board, the ends of the lateral portions 12 of the fasteners are drawn downwardly into clamping engagement upon the base flange of the rail. It will be observed that there is a slight space between the longitudinal edges of the base flange of the rail and the body portions of the rail fasteners. This space is provided so that the rail may be easily and quickly released by unscrewing the nuts 18 and lifting the upper portions of the fasteners so as to disengage the ends thereof from the recesses 13 in the base flange.

From the foregoing it is thought that the construction and operation of our improved

5 rail fastener will be readily understood. The rail may be easily and quickly clamped in position and securely held against longitudinal or transverse movement. The peculiar construction of the supporting tie will also effectually obviate any bodily movement of the supporting tie upon its bed. The rails will thus be at all times securely retained in position and prevented from spreading, whereby all danger of wrecks is to a large degree eliminated. The device may also be constructed at a comparatively small cost, is extremely durable in use and highly efficient in practical operation.

15 While we have shown and described the preferred construction and arrangement of our invention, it will be understood that the device is susceptible of considerable modification without departing from the essential feature or sacrificing any of the advantages thereof.

Having thus described the invention what is claimed is:—

1. The combination with a rail tie and a rail arranged thereon, said tie having a longitudinal slot, of a fastening device positioned in the end of said slot, said device comprising a body having laterally extending arms, one of said arms extending beneath the tie and having a bolt formed thereon, said tie being provided with an opening to receive the bolt, the other of said arms extending over the base flange of the rail in spaced relation thereto, said base flange being provided with a recess in which the extremity of said arm engages, the bolt on the other of said arms being threaded to receive a suitable fastening nut to clamp the fastening device upon the tie and rail.

40 2. The combination with a tie and rail arranged thereon, said tie having a longitudinal slot, of a fastening device comprising a body portion disposed through said slot, each end of said body portion having a laterally extending arm formed thereon, one of said arms engaging with the base

flange of the rail, a projection formed on the body portion extending under the rail flange, a threaded bolt formed on the other of said arms adapted to extend through the tie, and a clamping nut threaded on said bolt.

3. The combination with a tie and rail arranged thereon, said tie having a slot therein, of a fastener comprising a body portion disposed through said slot, a lateral arm formed on each end of said body portions, said arms extending in opposite directions, the base flange of the rail having a recess therein to receive the extremity of one of the arms, a projection formed upon the lower end of said body portion extending beneath the base flange of the rail, a bolt formed on the extremity of the other lateral arm to extend through the tie, and a clamping nut threaded on said bolt.

4. The combination with a tie and rail arranged thereon, said tie having a slot therein, of a fastener comprising a body portion disposed through said slot, a laterally extending arm formed on each end of the body portion, a lug formed upon each face of the body portion at its upper end to engage on the outer surface of the tie, a projection formed on the lower end of the body portion extending beneath the base flange of the rail, said flange having a recess in its upper surface to receive the extremity of the arm on the upper end of the body portion of the fastener, a bolt formed on the extremity of the other arm adapted to extend through the rail tie, and a clamping nut threaded on said bolt.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

WILLIAM HENRY THOMAS.
RICHARD CHALMERS THOMPSON.

Witnesses:

J. G. PULLEY,
ELMA WIEDER.