A. VON DÉSTINON.

RAIL SUPPORT AND CLAMP.

APPLICATION FILED MAR. 30, 1912.

1,046,278. Patented Dec. 3, 1912.

Fig. 1.

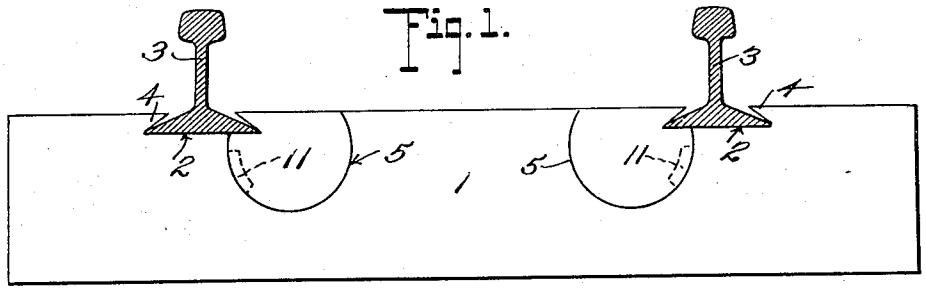


Fig. 2.

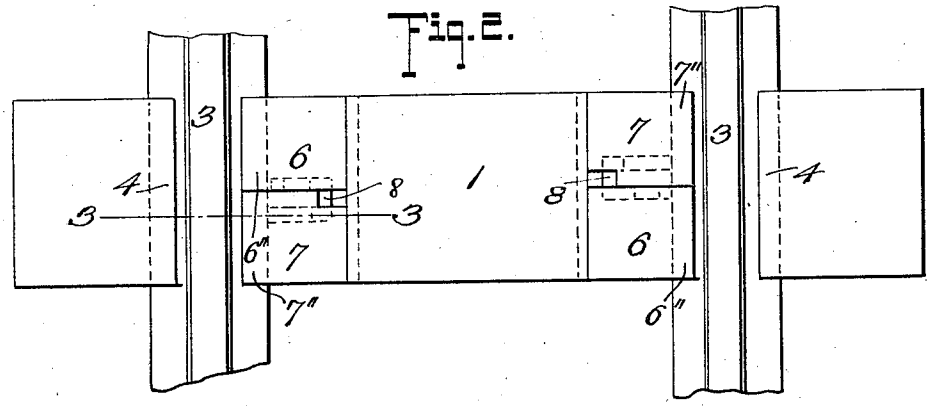


Fig. 3.

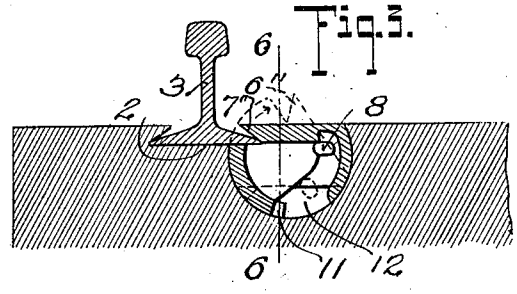


Fig. 4

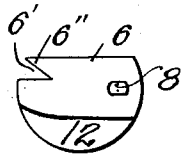


Fig. 5.

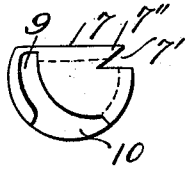
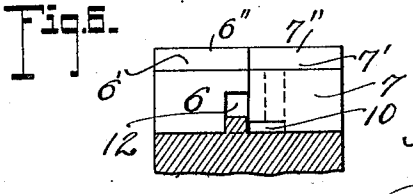


Fig. 6.



Witnesses

E. K. Wagner.

G. W. Kirkley

Inventor

Andrew von Déstinon

By Burton V. Robb

H. C. Robb

Attorneys

UNITED STATES PATENT OFFICE.

ANDREW VON DÉSTINON, OF CONKLIN, MICHIGAN.

RAIL SUPPORT AND CLAMP.

1,046,278. Specification of Letters Patent. Patented Dec. 3, 1912.

Application filed March 30, 1912. Serial No. 687,459.

To all whom it may concern:

Be it known that I, ANDREW VON DÉSTINON, a citizen of the United States, residing at Conklin, in the county of Ottawa and State of Michigan, have invented certain new and useful Improvements in Rail Supports and Clamps, of which the following is a specification.

This invention relates to improvements in railway ties and particularly to the metallic type, the primary object being to provide an efficient construction embodying clamping means forming a portion of the rail seat whereby the rail may be securely held in position on the tie without the necessity of using spikes, or the like, likelihood of spreading of the rails being also effectually prevented.

For a full understanding of the present invention, reference is to be had to the following description and the accompanying drawings, in which:

Figure 1 is a view in side elevation of a tie constructed in accordance with my invention, showing the clamping means in position; Fig. 2 is a top plan view; Fig. 3 is a longitudinal sectional view, taken about on the line 3—3 of Fig. 2; Figs. 4 and 5 are views in side elevation, showing the contiguous faces of the clamping members; and Fig. 6 is a transverse sectional view, taken about on the line 6—6 of Fig. 3.

Throughout the following detailed description and on the several figures of the drawings, similar parts are referred to by like reference characters.

Referring to the drawings and specifically describing my invention, a tie, designated by the numeral 1, constructed in accordance therewith is provided at suitable points near the end portions thereof with shallow recesses 2 forming a portion of the seat of the rails 3. The outer walls of the recesses 2 are undercut to form shoulders, or flanges, 4 for engaging over the bases of the rails at the outer sides thereof, said flanges preferably substantially conforming to the shape of said rail base. The recesses 2 merge into the larger recesses 5 preferably of semi-cylindrical shape.

Adapted to be inserted in the recesses 5 are clamping means comprising a pair of clamping members 6 and 7 conforming in part to the curvature of said recesses 5. The upper surfaces of the clamping members 6 and 7 are horizontal and preferably coincide with the upper surface of the tie 1, as clearly shown in the drawings. On the inner side of each clamping member is formed triangular shaped recesses 6′ and 7′, the lower sides of which are adapted to receive the inner edge of the base of the rail while the upper portions of the recesses form flanges 6″ and 7″ adapted to engage over said rail bases when in operative position. The inner faces of one of each pair of the clamping members 6 are formed with laterally projecting studs 8, the outer extremities of which project in a lateral direction with respect to the studs 8. The inner faces of the other clamping members 7 are provided with recesses 9 forming open slots which are enlarged at their lower portions, as designated at 10.

Describing particularly the operation of the clamping means, the members 7 are inserted transversely into the larger recesses 5 of the tie until they abut against shoulders 11 formed on the inner walls of said recesses. The members 6 are then inserted in the recesses 5 from the opposite sides thereof with the V-shaped recesses of said members in the positions shown in Fig. 3 of the drawings. The lower portions of the inner faces of the members 6 are cut away, as shown at 12, to permit said members to seat closely against the members 7, the shoulders 11 moving in the spaces provided by the cutaway portions when manipulating the clamping members. The studs 8 are then entered in the enlarged portions 10 of the recesses 9 and by circular downward movement of the members 6 the studs pass around the recesses 9 until the V-shaped recesses 6′ coincide with the recesses 7′ of the members 7. In this position the lateral projections at the outer extremities of the studs 8 interlock behind the inner faces of the members 7 securely positioning the clamping members in the recesses 5 aforesaid. The shoulders 11 thus prevent any transverse movement of the members 6 and 7 when in interlocked engagement. The rails are then inserted transversely on their seats formed by the horizontal faces of the recesses 2 and the lower faces of the recesses 6′ and 7′. As will be obvious, the pressure of the inner portions of the base of the rails on the portions of the clamping members 6 and 7 forming a part of their seats will tend to transmit the pressure circularly so that the shoulders 6″ and 7″ will firmly

grip the upper sides of the rail bases. The greater the pressure, such for instance as when a train is passing over the rails, the greater the clamping action of the flanges 6″ and 7″ on the rail bases.

To disengage the rails from the ties, the operation above described will be reversed. The rails are first moved transversely from their seats and the members 6 rotated upwardly in the direction of the arrows shown in Fig. 3 until the projections at the end of the studs 8 are disengaged from the walls of the clamping members 7, when both clamping members may be removed from their positions transversely in opposite directions.

The construction of tie herein described eliminates considerable labor, doing away with the necessity of the use of spikes and saving considerable time in the application of the several rail sections.

Having thus described the invention, what is claimed as new is:

1. The combination with a railway tie having a rail receiving recess, one wall of which being adapted to engage the rail at one side, of clamping means comprising a pair of clamping members adapted to be received in the recess aforesaid from opposite sides of the tie, one of said members having a recess forming an open slot therein, means on the other clamping member adapted to be received in said slot to interlock the clamping members, and means carried by the tie for preventing transverse movement of the clamping members when interlocked.

2. A railway tie having a shallow recess therein adapted to receive the rail and forming a rail engaging flange at one side thereof, and an enlarged recess adjacent to the shallow recess aforesaid, clamping members adapted to be inserted in the enlarged recess and to engage beneath the rail, flanges formed on the clamping members adapted to engage over the rail on the side opposite the rail engaging flange aforesaid and operable to clamp the rail by pressure of the same on said members, and a shoulder formed on the tie in the enlarged recess interposed between the clamping members and normally preventing transverse movement of said members.

3. A railway tie having a rail receiving recess, one wall of which forms a flange for engagement with the rail at one side thereof and an enlarged recess adjacent the recess aforesaid, clamping means engageable with the rail at its opposite side and comprising a pair of clamping members adapted to be inserted in the enlarged recess aforesaid, one of said members having a recess therein forming an open slot, a stud projecting from the inner face of the other member and adapted to be engaged in said slot whereby the clamping members may be interlocked, and a shoulder interposed between said members and normally preventing transverse movement thereof when in interlocked position.

4. A railway tie having rail receiving recesses, one portion of which forms seats for the rails, a wall of each recess constituting a flange adapted to engage the rails at one side thereof, the other portions of said recesses having curved walls, a pair of clamping members mounted in said recesses and having transverse V-shaped recesses at one side thereof into which the rails are adapted to extend, said members corresponding in part to the shape of the curved walls of the recesses aforesaid, one member of each pair having a recess in its inner face forming an open slot, a stud provided on the inner face of the other member of each pair and having a lateral extension formed thereon, said stud being adapted to be received in the slot aforesaid to interlock the co-acting pairs of clamping members, shoulders formed on the curved walls of the recesses and interposed between the pairs of clamping members whereby transverse movement of the members when in interlocked position is prevented.

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

ANDREW VON DÉSTINON.

Witnesses:
AMOS STOCKHILL,
NORMAN HARRIS.