

J. T. WADE.

TIE.

APPLICATION FILED JULY 10, 1911.

1,012,942.

Patented Dec. 26, 1911.

2 SHEETS—SHEET 1.

FIG. 3.

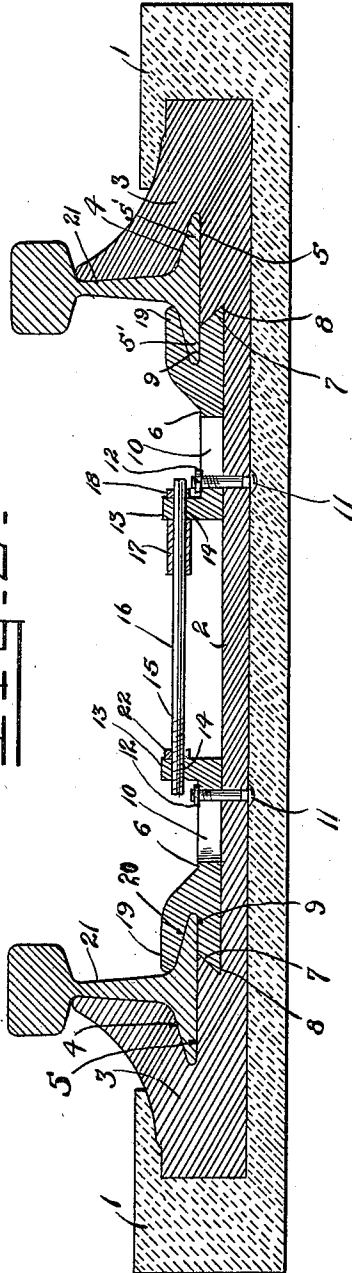
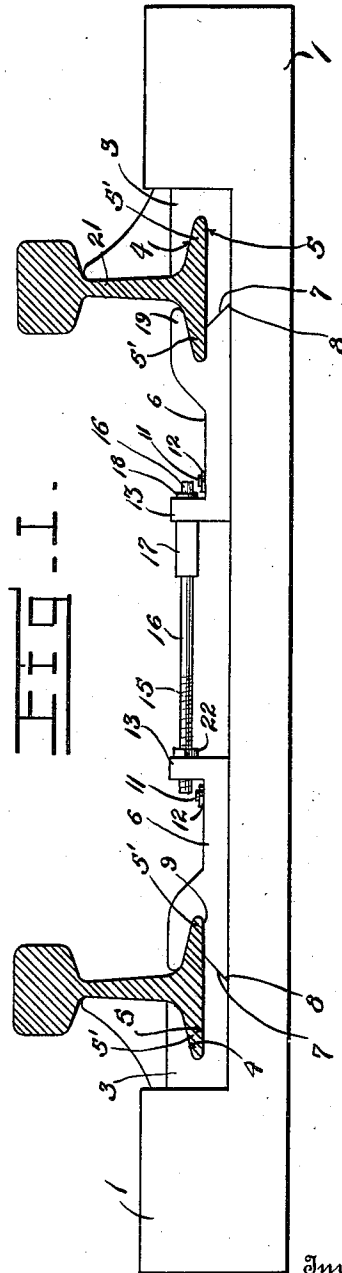


FIG. 1.



Inventor

James T. Wade.

Witnesses

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H. K. Parsons

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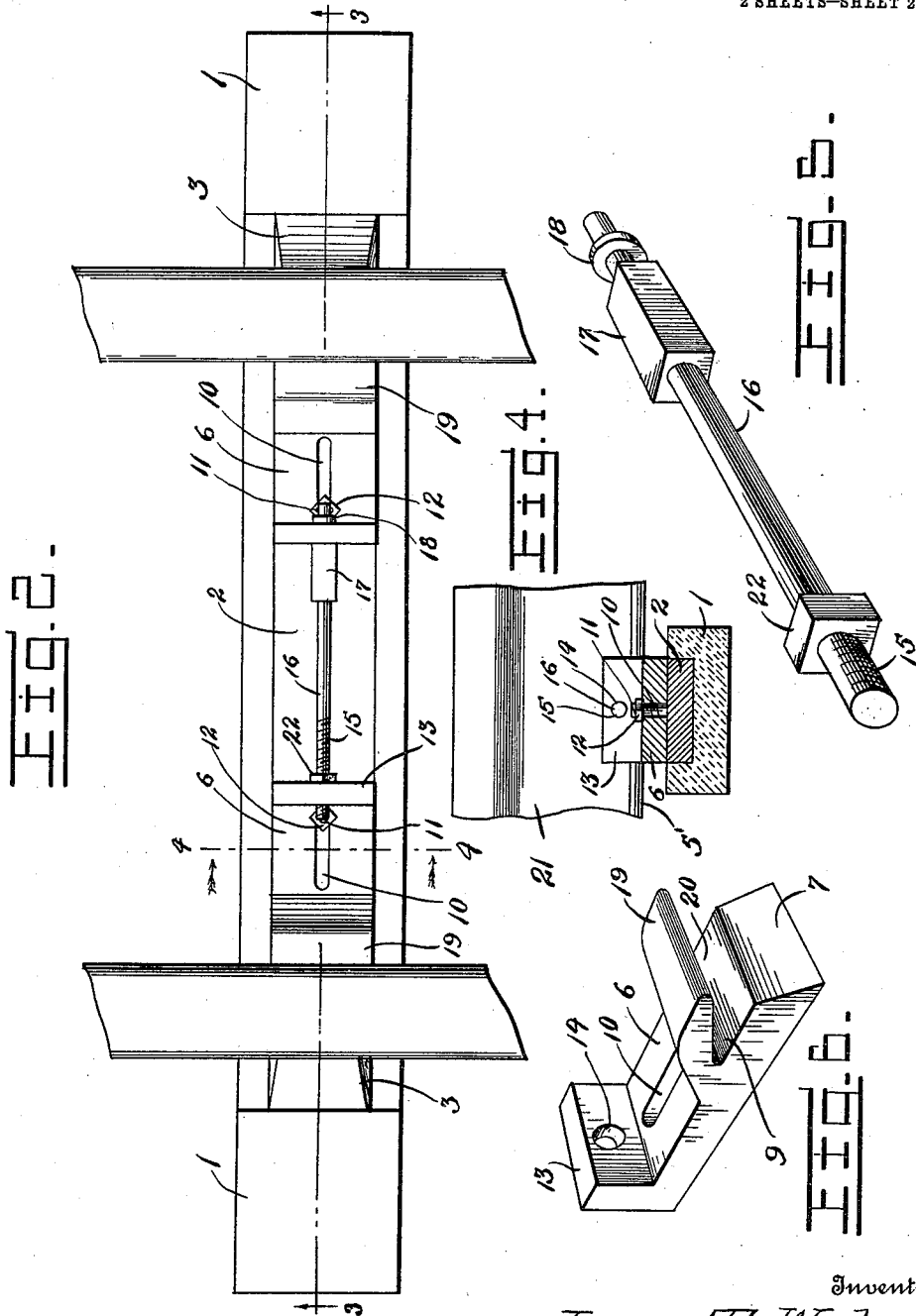
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UNITED STATES PATENT OFFICE.

JAMES T. WADE, OF BRADY, TEXAS.

TIE.

1,012,942.

Specification of Letters Patent.

Patented Dec. 26, 1911.

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To all whom it may concern:

Be it known that I, JAMES T. WADE, a citizen of the United States, residing at Brady, in the county of McCulloch and State of Texas, have invented certain new and useful Improvements in Ties, of which the following is a specification.

My invention relates to improvements in ties, and has for its leading object the provision of an improved form of railway tie having secured thereto means for clamping the foot of both of the rails passing over the tie simultaneously.

A further object of my invention is the provision of an improved form of compound concrete and metal railway tie which will both securely fasten the rails in position and will absolutely prevent spreading of the rails.

Another object of my invention is the provision of improved clamping devices for engaging the foot of the rail which will so engage with the main portion of the tie as to prevent upward wedging of the clamps by lateral strain on the rail secured thereby.

Other objects and advantages of my improved tie will be apparent from the following description taken in connection with the accompanying drawings, and it will be understood that I may make any modifications in the specific structure shown and described within the scope of my claims without departing from or exceeding the spirit of the invention.

Figure 1 represents a side elevation of one of my improved ties. Fig. 2 represents a top plan view of the tie in use. Fig. 3 represents a longitudinal sectional view on the line 3—3 of Fig. 2. Fig. 4 represents a cross sectional view on the line 4—4 of Fig. 2. Fig. 5 represents a perspective view of the clamp adjusting rod, and Fig. 6 represents a perspective view of one of the clamp members removed.

In the drawings, the numeral 1 designates the concrete end portion of my tie, said end portion being connected by the metal bar 2 which forms the main or central portion of the tie, said bar having its ends embedded in the concrete and having its central portion fitting down on the road bed. This bar, as most clearly shown in Fig. 3 has the enlarged end portions 3 formed with the inwardly extending groove 4 at the side of a cutaway portion which provides the flat rail engaging face 5 on

the block or end 3, the groove 4 being of size and shape to tightly receive one of the basal flanges 5' of the foot of the rail therein, the foot of the rail resting on the face 5.

Slidably mounted upon the bar 2 are a pair of clamping members comprising plates or bars 6 having at one end the inclined portion 7 to fit into the inwardly extending groove 8 formed at the point or shoulder where the block 3 strikes the bar 2, the portion 9 of the plate 6 adjacent said inclined end having its upper face in alignment with the rail support 5 and when the clamp is in engaging position forming a continuation of the portion 5', whereby one of the flanges 5' of the foot of the rail will rest upon said portion 9.

The plates 6 are formed with the central longitudinally extending guide slots 10 through which project the guide bolts 11 secured in the bar 2 and having the nuts 12 bearing down on the upper face of the members 6 to prevent vertical movement of the members 6 with respect to the bar 2, while moving in the slots of the members 6 to allow of the clamping plates to be adjusted longitudinally on the bar. The plates 5 are each formed at their inner ends with the upstanding flange or lug 13 having the aperture 14 therein, the aperture of one of said lugs 13 being threaded to engage the threaded portion 15 of the adjusting rod 16, said rod having a central squared portion 17 providing a shoulder bearing against the other lug 13 on the other clamping plate. The rod 16 has on its outer unthreaded end the collar 18 which bears against the outer face of the lug 13, and it will thus be seen that the squared portion 17 of said rod may be readily grasped by a wrench to turn the rod, the turning of the rod serving through its threaded engagement with one of the lugs to force the lugs and thus the two clamping members apart. To cause said clamping members to tightly engage the foot of the rail, I form on the plate 6 near its outer end the upwardly and outwardly curving lug 19 providing an inwardly extending groove or recess 20 between the lug and the portion 9 of the plate 6, said groove or recess being of size to receive the flange 5' of the base of the rail, and the upper edges of the block 3 and the end of the lug 19 extending inward to lie close or in engagement with the web 21 of

the rail when the rail is clamped in position.

From the foregoing description taken in connection with the accompanying drawings, the construction of my improved tie and rail clamps carried thereby will be readily understood, and it will be seen that the turning of the rod 16 serves to force the two clamps outward against the rail, a lock nut 22 being engaged on the threaded portion 15 of the rod to secure the same in adjusted position, the tightening of the bolts 11 further serving to lock the clamping members in tight engagement with the rails. It will also be seen that the ends 7 of the plates 6 fit into the grooves or recesses 8 of the tie proper, the said interlocking engagement of the tie and clamps serving to prevent the clamps from being bent or forced upward out of engagement with the rail by strain on the rail.

I claim:

1. A railway tie comprising a metal bar having its ends embedded in concrete blocks, said bar having a reduced central portion and the portion at each end at the reduced center having an angular groove formed therein, the end of the bar being further formed with a rail engaging portion adapted to form a rest for the foot of the rail and to engage the outer flange thereof, a clamp member slidably mounted on the reduced portion of the bar and having an end adapted to fit under the foot of the rail and into the angular groove of the bar, said clamp member having an upwardly and outwardly curved lug for engaging the inner flange of the foot of the rail, there being one of said clamp members for each of

the rails, means engaging the clamp members for forcing them apart into tight engagement with the rails, and combined guide and locking members for securing the clamping members in adjusted position.

2. A railroad tie comprising a bar having enlarged ends, said ends each having a cut-away portion providing a rail flange engaging recess and a rest for the foot of the rail, bolts projecting upward from the bar, clamp members mounted on the bar and having slots through which the bolts project, the side of the enlarged end having an angular groove formed therein, the end of the clamp member being shaped to fit into the said groove, an upwardly and outwardly curving lug formed on the clamp member near its end for engaging the inner flange of the rail, each clamp member having an upstanding lug at its inner end with an aperture formed therein, a threaded rod engaged in the apertures of the lug, and a squared portion formed on the rod to facilitate engaging thereof, whereby the turning of the rod serves to force the clamp members apart into tight engagement with the rails and the fitting of the ends of the clamp members into the grooves of the bar prevents upward prying of the clamp members, while the tightening of the guide bolts serves to secure the clamp members in adjusted position.

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

JAMES T. WADE.

Witnesses:

W. McSHAN,
J. G. McCALL.