

J. GRIFFIN.

RAIL TIE.

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933,553.

Patented Sept. 7, 1909.

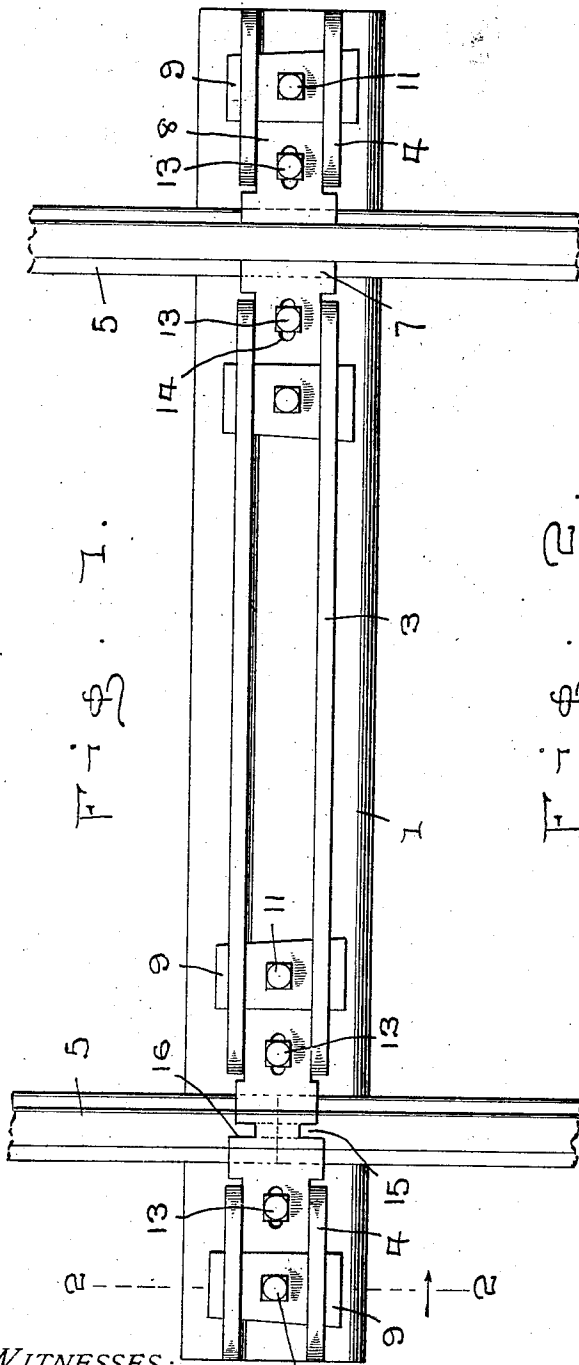


Fig. 2.

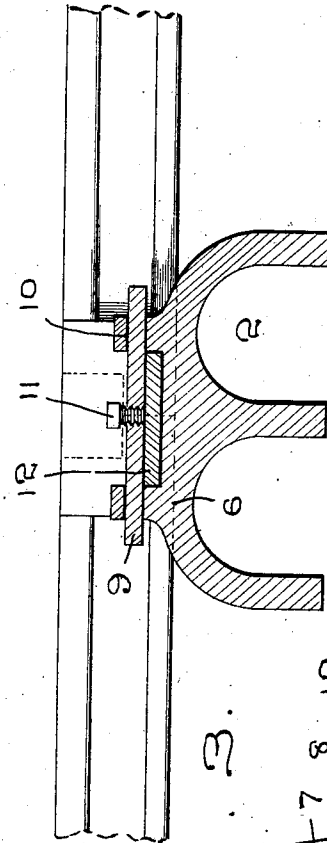


Fig. 3.



WITNESSES:

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RAIL-TIE.

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To all whom it may concern:

Be it known that I, JOHN GRIFFIN, a citizen of the United States, residing at Melrose, in the county of Monroe and State of Iowa, have invented certain new and useful Improvements in Rail-Ties; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in rail ties and means for attaching the rails thereto and my object is to provide a metallic tie adapted to support the rails of a railway track.

A further object is to provide means for locking the rails to the tie, whereby the same will be held against vertical or lateral movement.

A further object is to provide means for securing the locking mechanism in its adjusted position and a still further object is to provide means for locking the ends of the rails together.

It is further an object of the invention to provide anchoring means for the tie.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

Figure 1 is a top plan view of one of the ties showing the track rails attached thereto, and, Fig. 2 is a sectional view through the tie as seen on line 2—2, Fig. 1. Fig. 3 is a detailed side view of a rail holding block more particularly for use between rails at their joint.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the tie, which is preferably formed of metal and having a rounded upper surface, the body of the tie having grooves 2 formed longitudinally thereof, in which the soil upon which the tie rests, is adapted to pack, thereby holding the tie against slipping. The upper surface of the tie is provided with paralleling ribs 3 and 4, the ribs 3 extending between rails 5, while the ribs 4 are on the end portions of the ties extending beyond the rails, thereby permitting the rails to rest directly on the surface

of the tie and in order to form a firm base for the rails, the tie is provided with channels 6, in which the base of the rails are seated when applied to use.

The rails are held in position on the ties by means of blocks 7, the free ends of said blocks being formed to fit over the base of the rail and engage the web thereof, there being a block on each side of the rail, the stems 8 of which extend between the ribs 3 and 4, respectively, and are held in position against the rail by means of wedges 9, which wedges are entered through slots 10 in the ribs and by making the outer faces of the wedges tapered, inward pressure will be directed against the ends of the stems as the wedges are driven lengthwise through the slots.

The wedges 9 are held against casual removal from their respective slots by means of binding bolts 11, which bolts are entered through threaded openings in the wedges and engage a tongue 12 of the blocks 7, said tongues extending below the wedges and said blocks are further held in fixed position by means of bolts 13, which extend through slots 14 in the stems 8 and enter threaded openings in the tie.

When the blocks 7 are employed for securing the ends of the rails together, the inner and outer blocks are attached together as shown in Fig. 3 at their upper edges and are so arranged as to receive the abutting ends of the rails, the heads of the rails being cut away at their meeting ends and provided with projections 15, which enter recesses 16 formed between the meeting faces of the blocks, while the webs of the rails and base portions thereof extend below the meeting ends of the blocks and rest against each other, the two blocks being so arranged as to occupy the space occasioned by the cutting away of the heads of the rails. As the blocks in this instance are secured together at their upper edges, the wedge action caused by the wedges 9 will bring the lower portions of the blocks toward each other and thereby securely clamp the abutting ends of the rails. By attaching the rails together in this manner, the joints are so broken as to practically form a continuous rail and it will likewise be seen that the usual form of

spike employed for securing the rail, is dispensed with, the blocks securely holding the rails in position on the tie.

What I claim is:

- 5 1. The combination with a tie having grooves in its lower face and parallel ribs extending longitudinally of the tie, said ribs having slots therethrough; of rails adapted to extend across the tie, blocks adapted to engage the rails, said blocks having stems adapted to pass between the parallel ribs on said tie, said stems having tongues, wedges adapted to extend through the slots in the ribs and engage the ends of the stems and means to lock the wedges in their ad-
10 justed positions, said wedges resting upon said tongues, and fastenings insertible through said wedges and engaging said tongues.
- 20 2. A device of the character described, comprising a rail retaining member formed of upstanding blocks and having lateral portions provided with apertures, said blocks having in their upstanding portions recesses,
25 also an additional recess intermediate of and

below the aforesaid recesses, said recesses being adapted to receive corresponding extensions upon the ends of opposed rails, and means for the retention of said retaining member in position.

3. A device of the character described, comprising a base having parallel upstanding ribs, a rail retaining member having an upstanding portion provided with lateral recesses also an additional recess below and intermediate of the aforesaid recesses adapted to receive extensions upon the ends of opposed rails, and wedges insertible through slots in said ribs and resting upon said rail retaining member, and means for the attachment of said wedges to said rail retaining member.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN GRIFFIN.

Witnesses:

RICHARD HANNAM,
JOHN H. O'BRYAN.