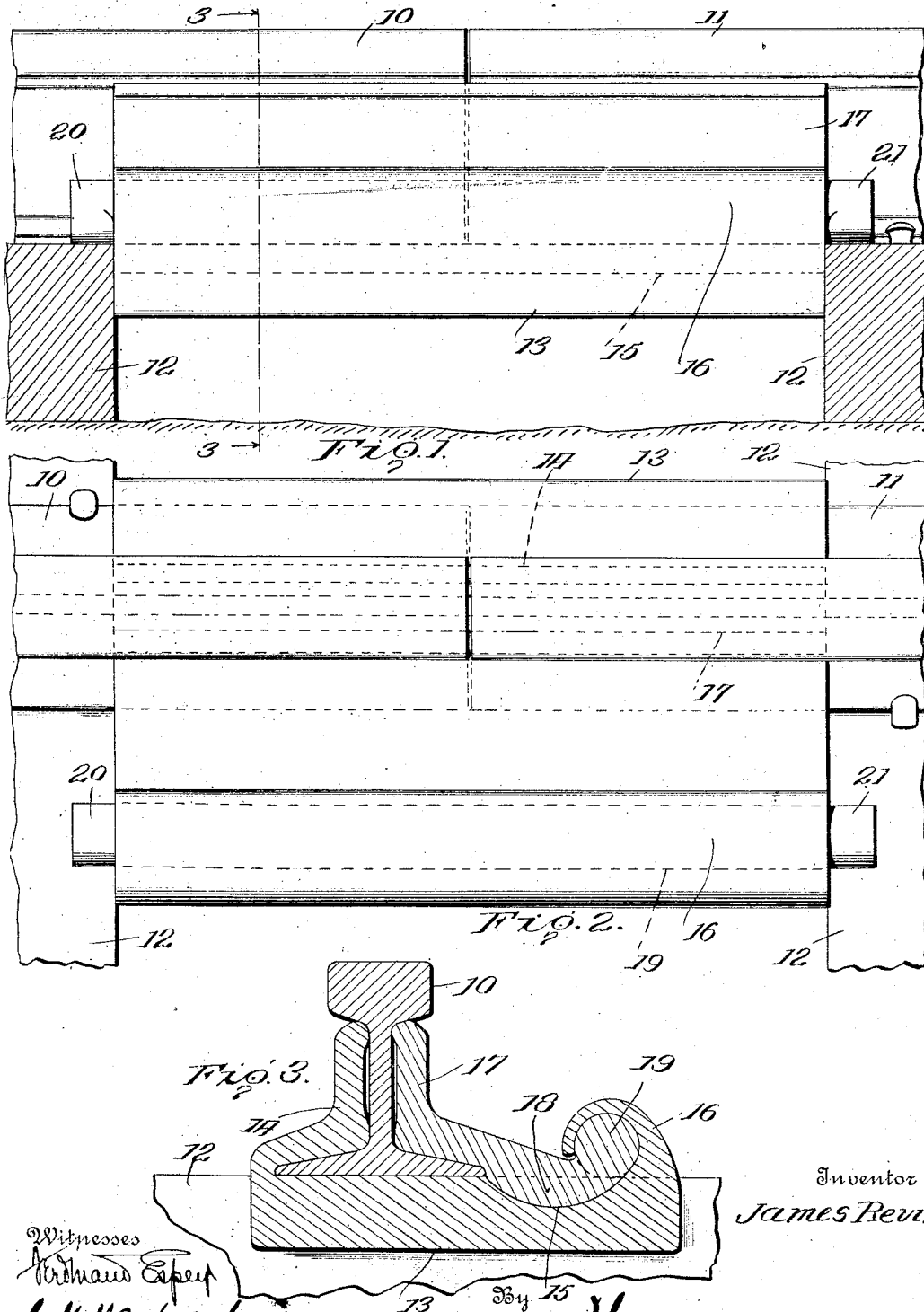


J. REVIS.
RAILWAY RAIL JOINT.
APPLICATION FILED MAY 1, 1912.

1,037,986.

Patented Sept. 10, 1912.



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RAILWAY-RAIL JOINT.

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Specification of Letters Patent.

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Application filed May 1, 1912. Serial No. 894,495.

To all whom it may concern:

Be it known that I, JAMES REVIS, citizen of the United States, residing at Raton, in the county of Colfax and State of New Mexico, have invented certain new and useful Improvements in Railway-Rail Joints, of which the following is a specification.

This invention relates to improvements in railway rail joints, and has for one of its objects to improve the construction and increase the efficiency and utility of devices of this character.

Another object of the invention is to provide a simply constructed device of this character which coacts with the ties to support the rails and prevent "creeping" of the clamping and brace members of the device.

Another object of the invention is to provide a simply constructed device whereby the meeting ends of rails are securely held in perfect alinement without the use of clamp bolts and nuts.

Another object of the invention is to provide a simply constructed device of this character wherein an efficient, strong and durable joint is produced by employing two members only.

With these and other objects in view, the invention consists in certain novel features of construction as hereafter shown and described, and then specifically pointed out in the claims, and in the drawings illustrative of the preferred embodiment of the invention: Figure 1 is a side elevation of the abutting ends of a pair of rails with the improved joint applied; Fig. 2 is a plan view of the same; Fig. 3 is a transverse section on the line 3—3 of Fig. 1.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The improved device is applied to the rails between two ties and the ties nearest to the abutting rail ends are utilized to assist in holding the joint.

The rails are represented conventionally at 10—11 and are of the usual form, and are supported upon ties represented conventionally at 12, the ties being spaced apart at equal distances from the terminals of the rails. The ties may be spaced any suitable distance apart, but generally will be located sixteen inches apart or eight inches from each rail end. The improved attachment comprises a plate or base member 13 bearing by its

upper face beneath the tie flanges of the abutting rails, and bearing at its ends against the inner faces of the nearest ties 12, the ties being so spaced that the member 13 extends between them and is held thereby from lateral movement. The member 13 is provided at one side with a rail brace 14 which extends over the tie flange and against the vertical web at one side and bears at its upper edge beneath the head of the rail as shown in Fig. 3.

The member 13 extends at the opposite side for a considerable distance beyond the base of the rail and is formed with a longitudinal hollow or depression 15 in its upper face and with an inwardly curving rib 16 at the outer edge. Bearing against the vertical webs and over the tie flange of the rail at the side opposite to the brace member 14, is another brace member 17 which conforms to the rail and is likewise provided with a downwardly projecting portion 18 conforming to and engaging in the depression 15 of the base plate. The member 17—18 is likewise provided with a longitudinal rib 19 which engages beneath the curved rib 16 and completely fills the same. At its ends the rib 19 extends beyond the ends of the member 15—16 as shown at 20—21, and bears by the extended portions upon the upper faces of the ties, as shown in Figs. 1 and 2. By this simple means it will be obvious that a strong, durable and efficient joint is produced whereby the rails are firmly united and supported, and by reason of the coaction between the base member 13 and the ties, all tendency to longitudinal creeping of the plate and its attachments is effectually prevented.

The improved device increases the resisting force of the webs of the rails at the points where the greatest lateral strains occur, especially when trains are moving rapidly around curves, as the rail is firmly supported between two coacting braces which hold the ends in perfect alinement at all times. The improved device forms a solid base for the weight of the train and coacts with the ties to prevent creeping or longitudinal displacement. The depression 18 of the movable brace plate likewise extends between the ties for a distance and is prevented thereby from longitudinal movement.

To assemble the improved device the plate 13 is inserted beneath the rail ends

and the rail ends together with the plate 13 are elevated to bring the cavity 15 above the ties. The plate 17 is then moved longitudinally of the rails into place with the "roll" 19 beneath the turned-over rib 16 and the web of the plate against the vertical webs and beneath the heads of the rails. The rails together with the plates are then lowered to position with the rails resting upon the ties and the lower portions of the plates between the ties.

The improved device is simple in construction, and can be inexpensively manufactured and applied to rails of various sizes.

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

1. A railway rail joint comprising a base adapted to bear beneath the abutting ends of a pair of rails and adapted to engage at its ends against the confronting faces of the adjacent ties, said base having a rail brace at one side and a longitudinal depression and an inwardly curving rib at the other side, and another brace adapted to

bear against the rail ends at the other side and provided with a projection conforming to and engaging in the depression of the base and with a rib conforming to and engaging in the curving rib of the base and projecting at the ends beyond the same and adapted to bear upon the adjacent ties.

2. The combination with the abutting ends of a pair of rails and of the ties adjacent thereto of a base bearing beneath the rail ends and against the ties and provided with a rail brace at one side and an inwardly curving rib at the other side, said base having a longitudinal depression below the line of the rails, and another rail brace having an extension engaging in the depression of the base and with a rib extended to bear upon the ties and engaging beneath the inwardly curved base rib.

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

JAMES REVIS. [L. S.]

Witnesses:

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