

No. 743,036.

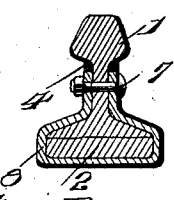
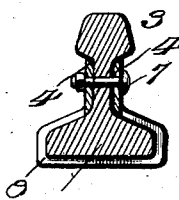
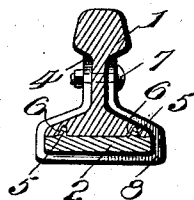
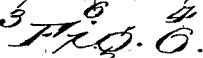
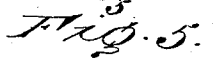
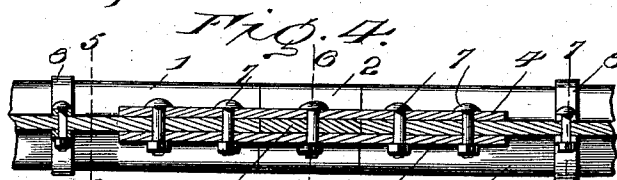
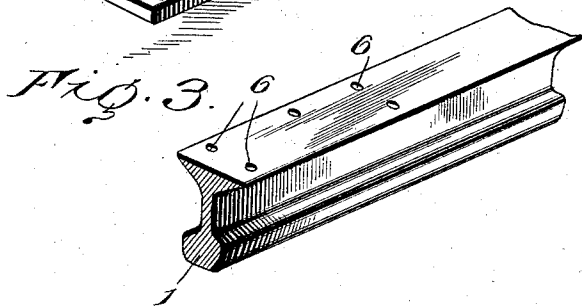
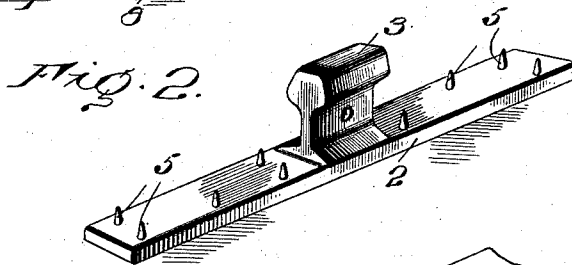
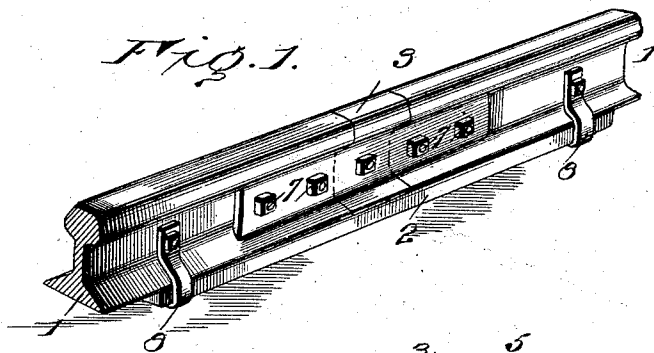
PATENTED NOV. 3, 1903.

W. ROSS, Sr.

RAIL JOINT.

APPLICATION FILED JAN. 23, 1902. RENEWED SEPT. 14, 1903.

NO MODEL.



Inventor

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Witnesses

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# UNITED STATES PATENT OFFICE.

WALTER ROSS, SR., OF OPELIKA, ALABAMA.

## RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 743,036, dated November 3, 1903.

Application filed January 23, 1902. Renewed September 14, 1903. Serial No. 173,192. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER ROSS, Sr., a citizen of the United States, residing at Opelika, in the county of Lee and State of Alabama, have invented certain new and useful Improvements in Rail-Joints; 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.

This invention appertains to the construction of railroads, and most especially to the joints between the rails, the purpose being to stiffen and brace the joint, so as to prevent the jar and jolt commonly experienced when the wheels of a train pass thereover.

This invention provides, in effect, a continuous rail and prevents any vertical or lateral play of the rail ends of a joint.

In accordance with the invention a short section of rail about five inches in length is interposed between the contiguous ends of adjacent rails and is provided with a base underlapping each of the rail ends, so as to prevent independent vertical movement thereof after the parts have been made secure. Interlocking means are provided between the base and the rail ends to prevent displacement thereof, and bars are bolted to the sides of the short section of rail and the rail ends, thereby resulting in the formation of a secure and substantial joint.

The invention consists of the novel features, details of construction, and combinations of the parts, which hereinafter will be more particularly set forth, illustrated, and finally embodied in the appended claims.

In the drawings hereto attached and forming a part of the specification, Figure 1 is a perspective view of a rail-joint embodying the invention. Fig. 2 is a perspective view of the coupling, consisting of the base and a centrally-disposed short section of rail. Fig. 3 is a perspective view of the end of a rail inverted, showing the depressions or openings therein for reception of the interlocking means between it and the base-coupling. Fig. 4 is a longitudinal plan section of the joint. Figs. 5, 6, and 7 are transverse sections on the respective lines 5 5, 6 6, and 7 7 of Fig. 4.

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 joint comprises the rail ends 1, base 2, with the centrally-disposed short section of rail 3, and bars 4, bolted to opposite sides of the parts 1 and 3.

The coupling consists, essentially, of the part 3, which conforms to a cross-section of the rails with which it is to be used, and the base 2, extended from opposite ends of the section of rail 3, so as to underlap the rail ends 1. The length of the base 2 will vary and depend upon the character of the road-bed. The parts 2 and 3 are integrally formed, being cast, forged, or otherwise constructed. The section of rail 3 is usually about five inches in length, although the size or linear extent is unimportant. Interlocking projections 5 are provided between the base 2 and the bottom side of the rail ends 1, so as to prevent any displacement thereof. The projections 5 preferably form a part of the base 2 and are adapted to enter depressions 6 in the bottom side of each of the rail ends 1. While in the preferable construction the parts 5 are pins, it is obvious that bolts or kindred fastenings may be substituted, the same passing through corresponding openings in the base portions of the coupling and rail ends.

The bars 2 are placed against opposite sides of the joint and are fitted in the spaces formed between the head and foot portions of the parts 1 and 3 and are bolted to said parts, as shown most clearly in Figs. 5 and 6, the bolts 7 passing through openings in the web portions of the parts 1 and 3. After the bars 4 have been fastened the rail ends are prevented from having any lateral play and are rendered secure against relative vertical play by means of the base 2, underlapping the rail ends, as well as by having the end portions of the bars 4 bolted thereto.

To further strengthen the joint and connection between the rail ends and base 2, stirrups 8 are provided and are bolted at their upper ends to the sides of the rail ends a short distance from the joint and have their lower ends receiving the terminal portions of the

said base. These stirrups 8 consist of metal straps bent into the form substantially as shown. The upper ends of the side portions conform to the sides of the lower part of the rail ends, to which they are secured by bolts or like fastenings.

From the foregoing it will be observed that a rail-joint constructed after the manner of the invention is braced in every direction against perpendicular and lateral stress. Hence the contiguous ends of adjacent rails are prevented from independent vertical play, which works injury to rolling-stock as well as causing annoyance to the passenger.

Having thus described the invention, what I claim as new is—

1. In a rail-joint, a base underlapping adjacent rail ends, interlocking means between said base and rail ends, and stirrups embracing the end portions of the base and the sides

of the rail ends and secured to the latter, substantially as specified.

2. The herein-described rail-joint comprising a coupling consisting of a short section of rail located between adjacent rail ends, and a base underlapping the said rail ends, interlocking means between the base and rail ends, side bars secured to the web portion of the rail ends and short section of rail, and stirrups embracing the end portions of the aforementioned base and the sides of the rail ends and secured to the latter, substantially as specified.

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

WALTER ROSS, SR. [L. S.]

Witnesses:

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