

J. M. JOHNSON.
RAIL JOINT.
APPLICATION FILED DEC. 27, 1910.

993,830.

Patented May 30, 1911.

Fig. 1.

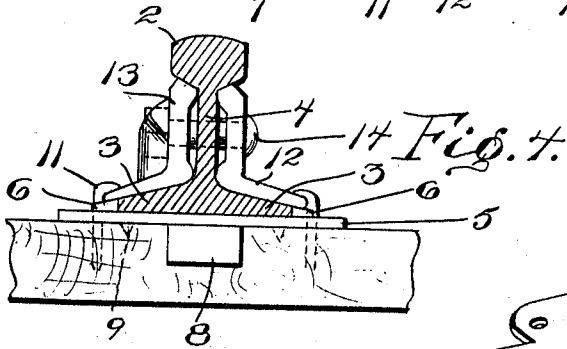
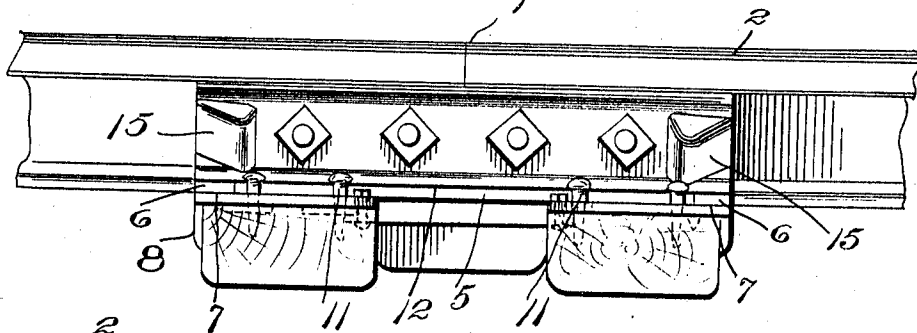


Fig. 2.

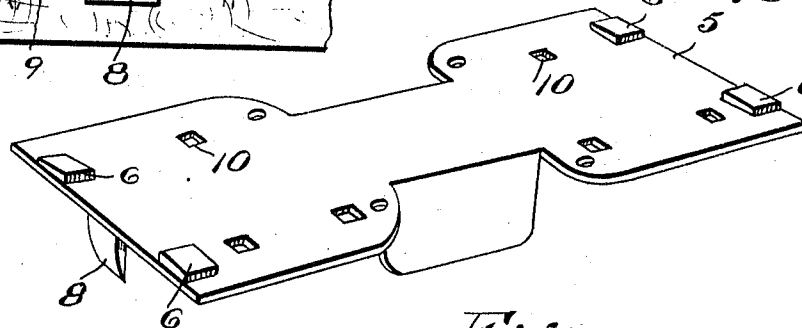


Fig. 5.

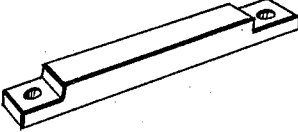
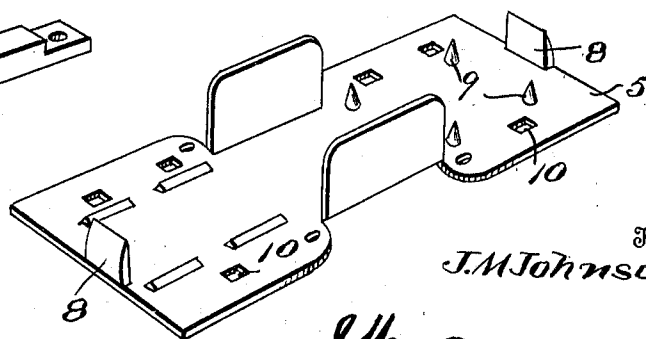


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

JOSEPH M. JOHNSON, OF MILLERSBURG, PENNSYLVANIA.

RAIL-JOINT.

993,830.

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REISSUED

To all whom it may concern:

Be it known that I, JOSEPH M. JOHNSON, a citizen of the United States, residing at Millersburg, in the county of Dauphin and State of Pennsylvania, 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 relates to new and useful improvements in rail joints, and has for an object to provide a device of this character which will securely clamp the meeting ends of a pair of rails in proper position, and also protect the connecting bolts against injury by the wheels of a car upon derailment of the same.

Another object of this invention is to improve and simplify devices of this character, rendering them comparatively simple and inexpensive to manufacture, reliable and efficient in use and readily assembled.

With the above and other objects in view, this invention resides in the novel features of construction, formations, combinations and arrangements of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my invention; Fig. 2 is a sectional view taken through one of the rails, showing my invention in end elevation, and Figs. 3 and 4 are perspective views of the tie-engaging plates. Fig. 5 is a detail perspective view of one of the reinforcing members detached.

Referring to the drawings by characters of reference, the numeral 1 designates the meeting ends of a pair of rails or the like, comprising the customary heads 2, base flanges 3 and connecting webs 4, the said rail adapted to be mounted upon a suitable plate 5, provided at intervals throughout its length with upstanding bosses or extensions 6, adapted to engage cut-away portions 7 located in the base flanges of the rails, for the purpose of assisting in holding the rails against displacement upon the ties. This plate 5 is also provided with depending extensions 8, adapted to engage one face of the tie, and with downwardly projecting

pins 9, adapted to be driven into the tie for the purpose of holding the plate against displacement therewith.

Apertures 10 are located in the plate 5, upon opposite sides of the base flanges of the rails in staggered relation to each other, to provide a means whereby the customary rail-retaining spikes 11 may be driven into the ties, with their upper ends or heads engaging the base flanges 12 of the fish plates 13, secured to opposite sides of the rails by means of the customary bolts 14. The fish plates 13 are provided adjacent the outer retaining bolts 14 with deflecting members 15, the said deflecting members serving to throw the rail away from the bolts, manifestly protecting the same from injury by the wheels of the car in case of the derailment thereof.

The inner ends of the sides of the plate 5 can be apertured, whereby reinforcing members can be secured to the opposite sides thereof.

From the foregoing disclosure it will be manifest that a rail joint is provided for which will fulfil all of the necessary requirements of such a device.

Having thus fully described this invention, what I claim as new and desire to secure by Letters Patent is:

1. The combination with a pair of rail ends, of a plate, means carried by the plate for engaging said rail ends, means carried by the plate for engaging the ties of a railroad track, fish plates secured to the said rail ends, bolts projecting through the fish plates and the rail ends respectively, for holding said fish plates against displacement, and deflecting members formed upon the fish plates, substantially as and for the purposes hereinbefore described.

2. The combination with a pair of rail ends of a plate, bosses formed upon the upper ends of the said plate for engagement with recesses formed in the base flanges of the rail ends, depending extensions formed upon the lower face of the plate for engagement with the sides of the ties upon which the rails are to be located, depending pins formed upon the lower face of the plate for engagement with the said ties, fish plates upon opposite sides of the rail ends, bolts extending through the said

fish plates and rail ends respectively, for
holding the said fish plates against displace-
ment, and deflecting extensions formed ad-
jacent the end nut and bolts, for the purpose
5 of preventing injury to the said bolts by de-
flecting the wheels of a car therefrom upon
the derailment of the said car.

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

JOSEPH M. JOHNSON.

Witnesses:

S. W. COOK,

CHAS. C. RICHARDSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
