

S. TICE.
RAIL JOINT.

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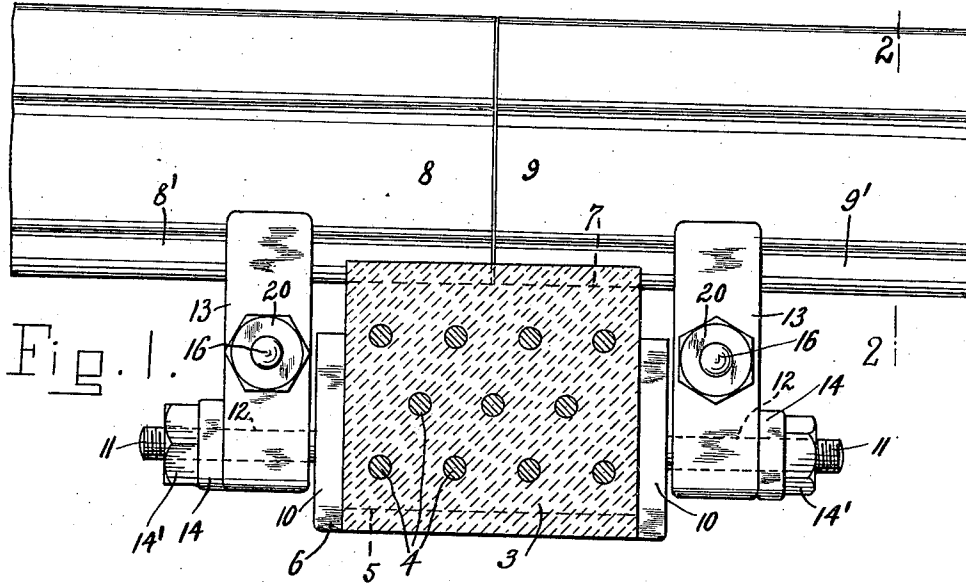
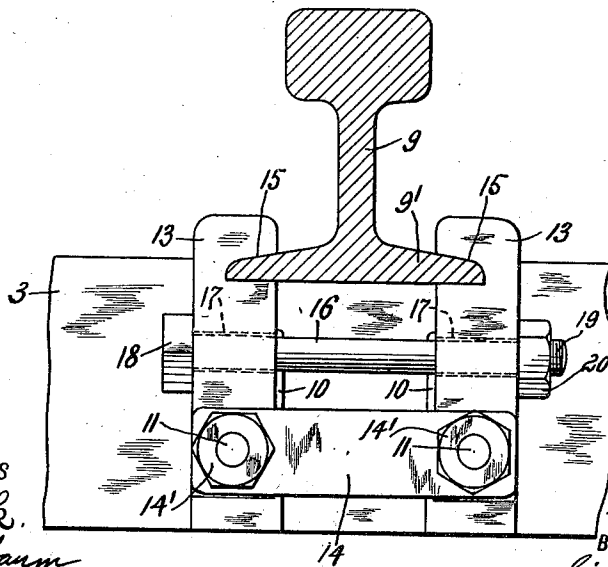


Fig. 2.



WITNESSES
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STEVEN TICE, OF ROCK SPRINGS, WYOMING.

RAIL-JOINT.

1,004,941.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, STEVEN TICE, a subject of the King of Hungary, and resident of Rock Springs, in the county of Sweetwater and State of Wyoming, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

The present invention relates to rail joints, and has for one of its objects to provide a device of this character for connecting in a simple and efficient manner the meeting ends of adjoining rails upon concrete—or metallic—ties.

Another object of the invention is to produce a rail joint for connecting adjoining rails without the use of fish-plates and the bolts passing through the latter and the rails.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in the combination, arrangement and construction of parts hereinafter fully described, pointed out in the appended claims and illustrated in the accompanying drawings, it being understood that many changes may be made in the size and proportion of the several parts and minor details of construction without departing from the spirit or sacrificing any of the advantages of the invention.

One of the many possible embodiments of the invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a side elevation of a rail joint constructed in accordance with the present invention, and Fig. 2 is a section taken on line 2—2 of Fig. 1.

In the drawings, the numeral 3 indicates a railway tie made of concrete, reinforced by longitudinal metallic rods 4, 4, and provided in its lower surface with recesses 5, 5 for the reception of yokes 6, 6, and with recesses 7, 7 in its upper surface to accommodate the adjoining rail sections 8 and 9. There are two yokes 6, 6 arranged upon the tie 3 at the meeting place of the two rail sections, and to the upwardly extending portions 10, 10 thereof are fixedly attached screw-threaded spindles 11, 11, engaging holes 12, 12 in the lower ends of rail engaging clamps 13, 13. These clamps are kept upon their spindles by plates 14, 14, which, in turn, are held against the clamps 13, 13 by nuts 14', 14', meshing with the threads

of the spindles 11, 11. In the upper ends of the clamps 13, 13 recesses 15, 15 are provided, adapted to engage the base flanges 8' and 9' of the rails. The clamps are kept in engagement with these base flanges by transverse screw bolts 16, 16, which pass through apertures 17, 17 in said clamps, one of the ends of said bolts being provided with heads 18, 18 resting against one of a pair of clamps and the other end being screw threaded, as shown at 19, and provided with nuts 20, 20, bearing against the other of the coacting pair of clamps. The yokes 6, 6 with their bolts 11, 11 are attached to the ties, before the same are being placed in position upon the ground. After the rails have been placed into the recesses 7 in the ties, the clamps 12, 12 are engaged with their spindles 11, 11, the plates 14 put upon said spindles, after which the nuts 14', 14' are employed to hold the said plates and thus the clamps in position upon the spindles. When now the clamps 13, 13 are brought into substantially vertical positions, the bolts 16 engaged therewith, and the nuts 20 screwed up, the clamps will move around the spindles 11, 11, which act as pivots, and engage the rail sections, whereby the latter will be held firmly in the recesses 7, 7 against transverse movement, but will be permitted to move in the direction of their longitudinal axes upon expansion by heat.

While herein the rail joint has been described in connection with a concrete-tie, it is to be observed that the same can be made use of upon metallic, wooden or other ties.

What I claim is:

1. In a rail joint, the combination with a tie having a recess in its upper surface, of the meeting ends of two rails arranged in said recess, a pair of clamps pivotally attached to each side of said tie, each pair being adapted to engage one of said rails, and a screw bolt upon each pair of clamps for moving the same around said pivots toward each other into and keeping them in engagement with their corresponding rail.

2. In a rail joint, the combination with a tie having a recess in its upper surface and recesses in its lower surface, of the meeting ends of two rails arranged in said first mentioned recess, yokes seated in the recesses in the lower surface of said tie, a pair of clamps pivotally attached to said yokes upon each side of said tie, each pair of clamps being adapted to engage one of said rails,

and means upon each pair of clamps for moving the same around said pivots toward each other into and keeping them in engagement with their corresponding rail.

5 3. In a rail joint, the combination with a tie having a recess in its upper surface and recesses in its lower surface, of the meeting
10 ends of two rails arranged in said first mentioned recess, yokes seated in the recesses in the lower surface of said tie, a pair of
clamps pivotally attached to said yokes upon
each side of said tie, each pair of clamps
being adapted to engage one of said rails,
15 and a screw bolt upon each pair of clamps
for moving the same around said pivots toward each other into and keeping them in
engagement with their corresponding rail.

20 4. In a rail joint, the combination with a tie having a recess in its upper surface and two recesses in its lower surface, of the meet-

ing ends of two rails arranged in said first mentioned recess, two yokes seated in the recesses in the lower surface of said tie, spindles attached to said yokes, a pair of
clamps upon each side of said tie provided 25
with holes engaged by said spindles, nuts meshing with the spindles for keeping said clamps thereon, each pair of clamps being
adapted to engage one of said rails, and a
screw bolt upon each pair of clamps for 30
moving the same around said spindles toward each other into and keeping them in
engagement with their corresponding rail.

Signed at Rock Springs, in the county of Sweetwater and State of Wyoming, this 35
20th day of June, A. D. 1911.

STEVE TICE.

Witnesses:

ALBERT MORRIS,
JOHN NAGY.

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