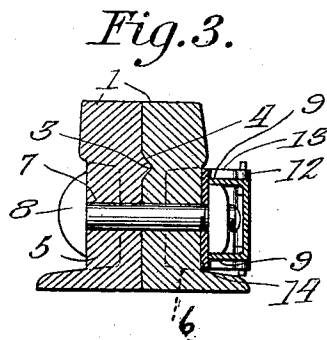
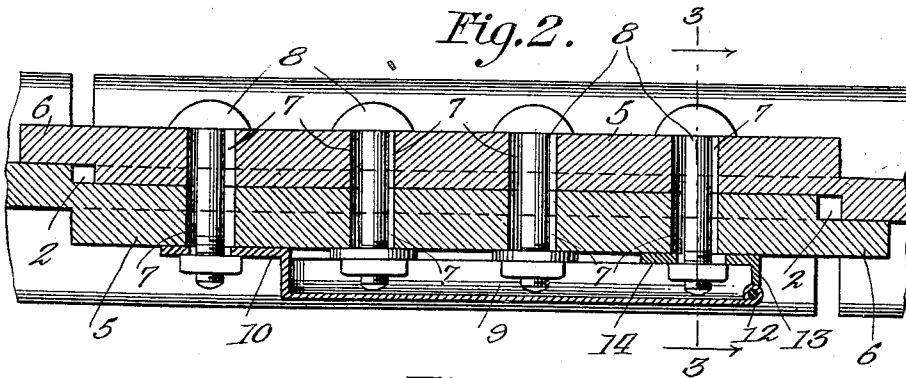
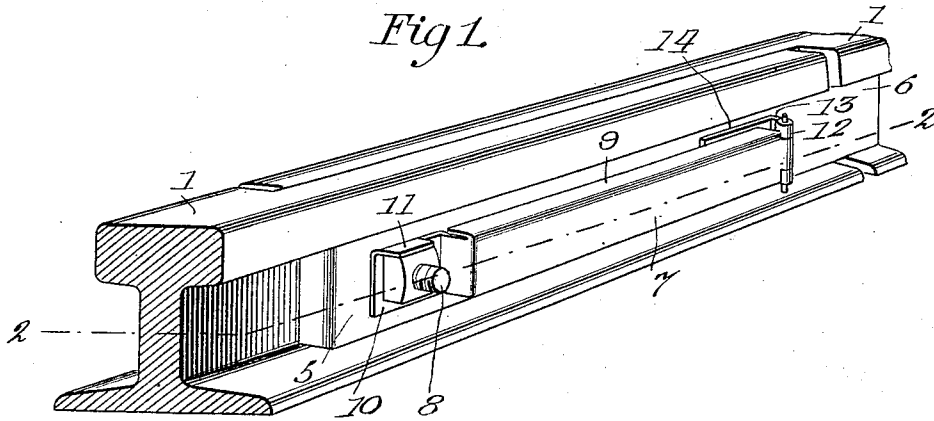


J. A. POIRIER.
RAILWAY RAIL JOINT.
APPLICATION FILED MAY 27, 1910.

968,408.

Patented Aug. 23, 1910.



Inventor

Witnesses

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UNITED STATES PATENT OFFICE.

JOSEPH A. POIRIER, OF WOONSOCKET, RHODE ISLAND.

RAILWAY-RAIL JOINT.

968,408.

Specification of Letters Patent.

Patented Aug. 23, 1910.

Application filed May 27, 1910. Serial No. 563,747.

To all whom it may concern:

Be it known that I, JOSEPH A. POIRIER, a subject of the King of Great Britain, residing at Woonsocket, in the county of Providence and State of Rhode Island, have invented new and useful Improvements in Railway-Rail Joints, of which the following is a specification.

My invention relates to improvements in railway rail joints, and it consists in the constructions, combinations and arrangements herein described and claimed.

An object of my invention is to provide an improved joint for railway rails, which eliminates the defects of fracture or relative displacement of the rail ends caused in existing constructions by the weakening effect of the apertures for clamping bolts.

A further object is to provide an improved construction in which the ends of the rails will be rigidly held against deflection under the weight of a train, thereby preventing rounding of the rail tread at the ends of the rails and eliminating the hammering action of a passing train incident thereto.

A further object is to provide an improved rail joint adapted for free expansion and contraction under variations of temperature, and in which the plurality of clamping nuts will be secured against turning on their bolts by a common detachable locking means.

In the accompanying drawings, forming part of this specification and in which similar reference symbols indicate corresponding parts in the several views: Figure 1 is a perspective view, illustrating one embodiment of my invention. Fig. 2 is a section on the line 2—2 of Fig. 1. Fig. 3 is a section on the line 3—3 of Fig. 2.

Referring to the drawings: 1 indicates a pair of rails with their ends overlapping and provided on their inner engaging surfaces with recesses 2 extending through half the rail width; said recesses being formed of somewhat greater length than the overlapping portions of the rails to permit expansion and contraction of the latter under variations of temperature.

As shown especially in Fig. 3, a tapered wedging projection 3 extends longitudinally on the inner side of one of the overlapping rail ends in position to engage a correspondingly tapered longitudinal groove 4 on the inner side of the other overlapping rail end. Said wedging projection and groove act to

insure proper alinement between the treads of the two rails, and cooperate with the clamping bolts to securely bind the rail ends against relative displacement.

The recessed portion of each rail web is provided with a reinforce 5 on its outer side, which projects at 6 beyond the end thereof for engaging the unrecessed web of the other rail. Said reinforces are either formed integral with the rail webs, or are rigidly attached thereto, as by welding, to constitute practically integral parts of said webs. The projecting portions 6 of the reinforces are shaped to clamp with a wedging action between the heads and bottom flanges of the rails, thereby strongly and rigidly supporting said rails adjacent their recessed joint portions; the shape of said projections being similar to that shown by broken lines in Fig. 3. A plurality of elongated apertures 7 extend through said reinforces and rail webs for receiving clamping bolts 8 and accommodating the rails to variations of temperature.

The nuts of the several clamping bolts are locked by a common locking plate provided with locking flanges 9 for lockingly engaging all of the nuts except the end one of the series. The locking plate is provided with an apertured offset portion 10 adapted to receive the end bolt of the series and to be clamped against the joint by the nut of said bolt. Said offset portion 10 is provided with a flange 11 adapted to be bent into engagement with said last nut for securely locking it.

The locking plate is hinged at 12 to an upturned flange 13 of a base plate 14; said base plate being apertured to receive the initial bolt of the series and adapted to be securely clamped to the joint by the nut of said initial bolt. The flange 13 and the offset portion 10 firmly support the locking plate in operative position along the series of nuts. It will be clear that this construction (which constitutes the subject matter of my contemporary application, of even date herewith, Serial Number 563,746,) provides a common locking means capable of being efficiently employed with any desired number of bolts, and that it can be readily released for adjusting all bolts of the series.

I have illustrated and described preferred and satisfactory constructions, but, obviously, changes could be made within the spirit and scope of my invention.

Having described my invention, what I claim and desire to secure by Letters-Patent, is:

5 A railway rail joint comprising a pair of rails with their ends overlapping and recessed through half of their width on their inner engaging sides and with a longitudinal tapered wedging projection on the inner side of one recessed portion and a corresponding groove in the inner side of the other recessed portion, a reinforce formed integral on the outer side of said recessed portion of each rail web and projecting beyond the end thereof for engaging the complete 15 portion of the other rail; the projecting por-

tions of the reinforces being tapered inward and wedged between the heads and bottom flanges of said complete rail portions, and the said recessed webs and their integral reinforces being provided with a plurality of 20 elongated apertures, and clamping bolts extending through said apertures.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH A. POIRIER.

Witnesses:

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