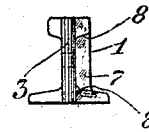
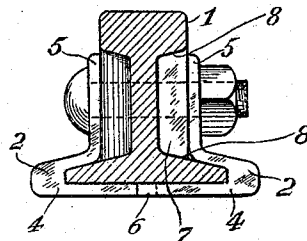
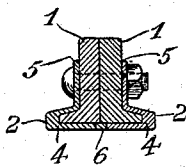
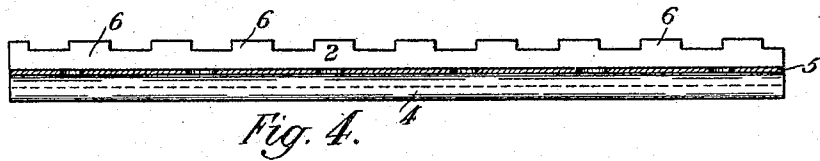
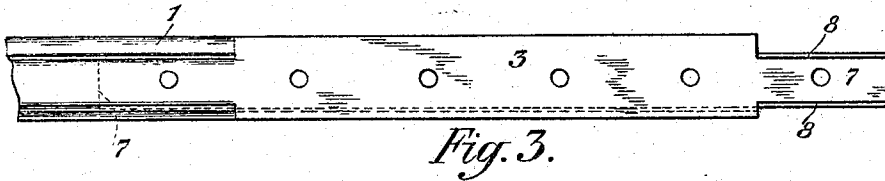
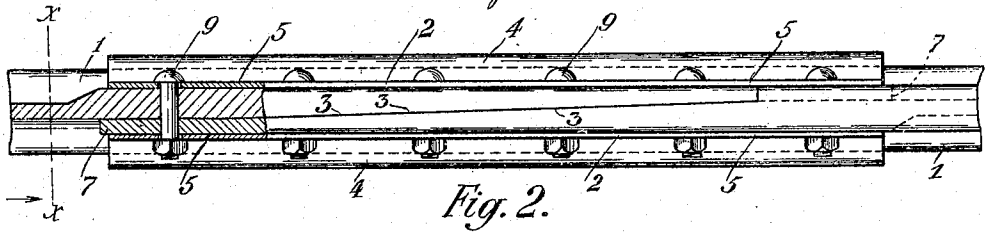
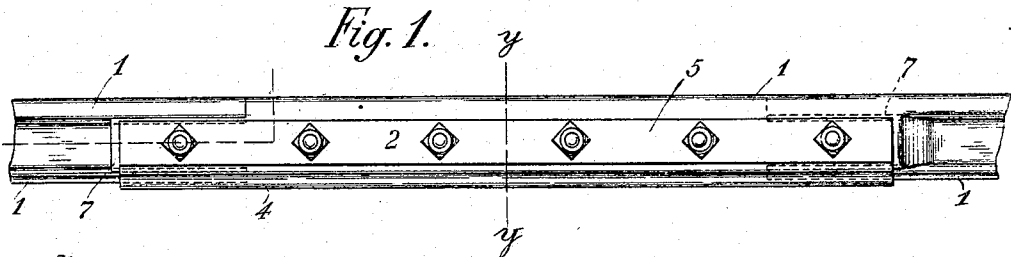


M. THORSON.
RAIL JOINT.
APPLICATION FILED JAN. 8, 1909

941,473.

Patented Nov. 30, 1909.



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UNITED STATES PATENT OFFICE.

MONS THORSON, OF SANDERS, MONTANA.

RAIL-JOINT.

941,473.

Specification of Letters Patent.

Patented Nov. 30, 1909.

Application filed January 8, 1909. Serial No. 471,261.

To all whom it may concern:

Be it known that I, MONS THORSON, a subject of the King of Norway, residing at Sanders, county of Rosebud, and State of Montana, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

My invention relates to improvements in rail joints, the object being to provide a more substantial construction in a rail joint than has heretofore been employed in this class of work.

A further object of my invention is to provide such a construction in a rail joint that the pounding and vibration incident to the ordinary construction will be overcome.

A further object of my invention is to provide fish-plate interlocking means to prevent relative longitudinal movement of the same. And a further object of my invention is to make special provision for maintaining the contiguous ends of the rails in alinement.

Other objects will appear hereinafter.

With these objects in view, my invention consists in such a novel construction and arrangements of parts all as will be hereinafter fully described and particularly pointed out in the appended claim.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification and in which,

Figure 1 is a side elevation showing my improved rail joint in its preferred form, Fig. 2 is a plan view partly in horizontal section, Fig. 3 is a detail side elevation showing the inclined surface of one rail which is adapted to come in contact with a similar inclined surface of the other, Fig. 4 is a detail longitudinal section showing the fish-plate construction, Fig. 5 is a transverse section taken on the line $x-x$ of Fig. 2, Fig. 6 is an end elevation of a rail, and Fig. 7 is a transverse section taken on the line $y-y$ of Fig. 1.

Referring now to the drawings, 1 indicates the rails and 2 the rail joint fish-plates. The ends of the rails 1 are tapering as shown, the inclined surfaces 3 being adapted to come in contact with each other when the joint is made. This obliquely disposed joint is much

preferable to the ordinary joint having square rail ends, since the usual vibration caused by car wheels coming in contact with the joint is overcome. It is obvious that whatever the contraction or expansion of the rails the tread of the rails is always continuous and uniform. The fish-plates 2 are provided with a channel portion 4 adapted to conform to and engage the foot of the rail, and a vertical portion 5 adapted to engage the web or vertical portion of the rail. A series of teeth 6 are provided in each fish-plate 2, said teeth being adapted to mesh to prevent relative movement of the fish-plates. The reduced extension 7 in the rail 1 is made straight and formed with bevel edges 8 adapted to fit snugly between the head and foot portions of the rail, thus forming a rigid construction. The bolt-holes in the fish-plates 2 and rails 1 register, and the rail bolts 9 when secured in position complete the rail joint.

While I have shown what I deem to be the preferable form of my device, I do not wish to be limited thereto as there might be many changes made in the details of construction and arrangements of parts without departing from the spirit of my invention.

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

In a rail joint, two rails having overlapping beveled ends provided with integral reduced extensions having beveled edges adapted to contact with the head and foot portions of the opposed rail section; fish plates adapted to engage the rail ends and having flanges extending horizontally to meet under the rail, the said flanges being provided with alternate intermeshing teeth and notches on their meeting edges; and bolts passing through said fish plates and rail ends, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MONS THORSON.

Witnesses:

JOHN WANGEN,
ERICK HJELVIK.