No. 750,490. PATENTED JAN. 26, 1904.

C. L. POPE.

RAILWAY RAIL JOINT.

APPLICATION FILED SEPT. 21, 1903.

NO MODEL.

Fig. 1.

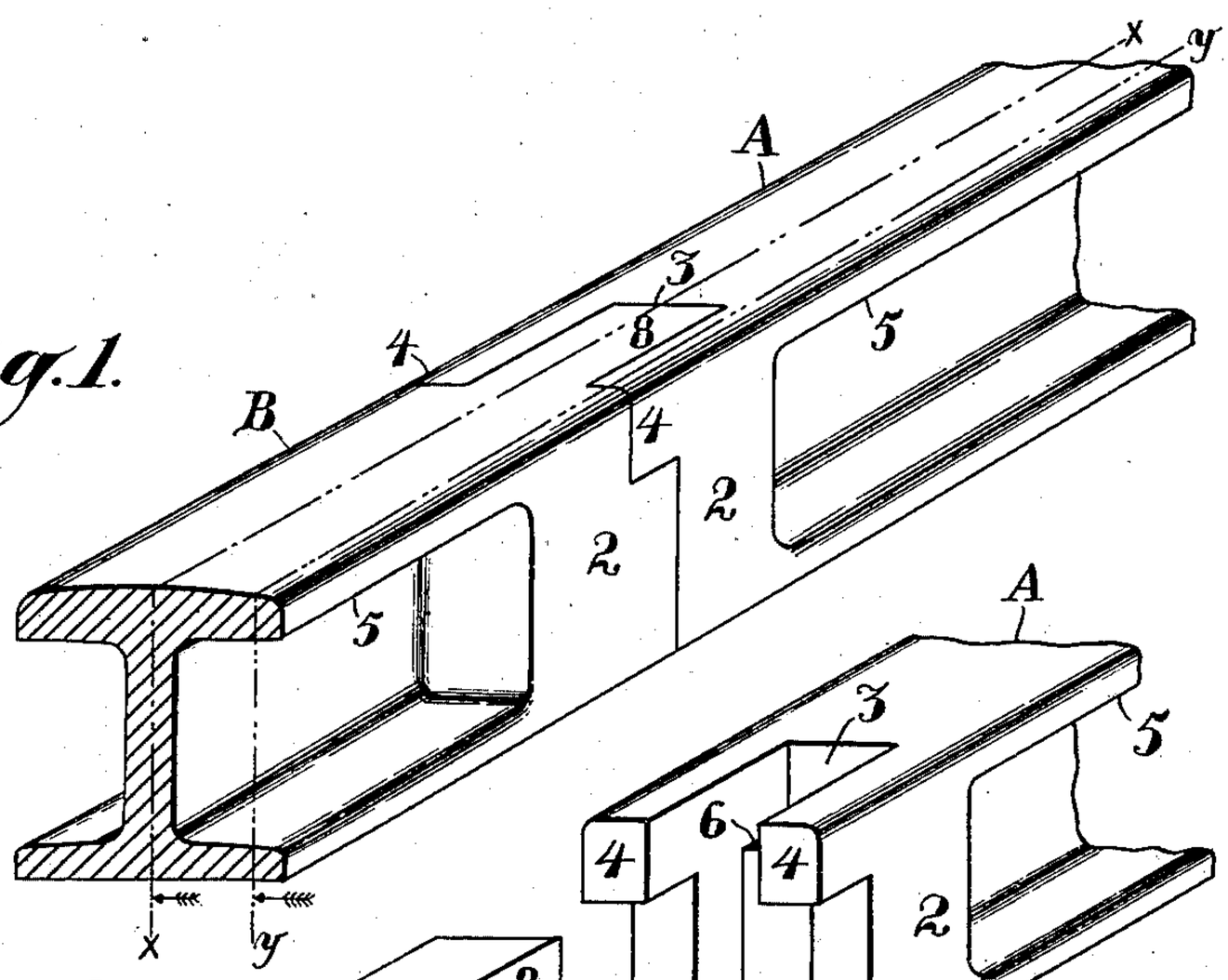


Fig. 2.

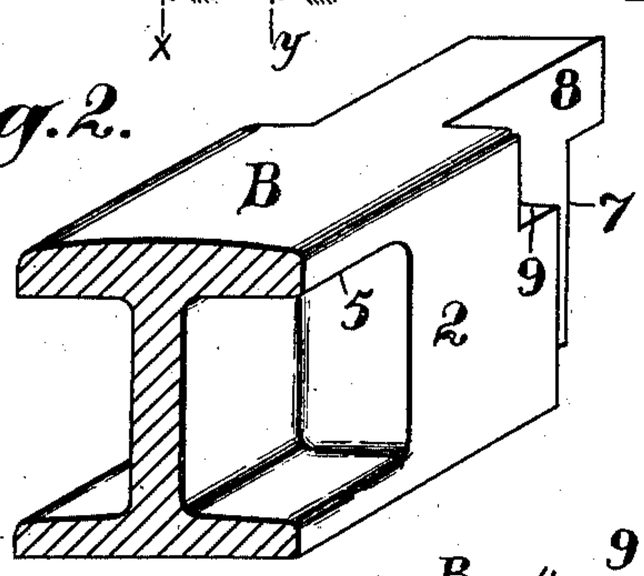


Fig. 3.

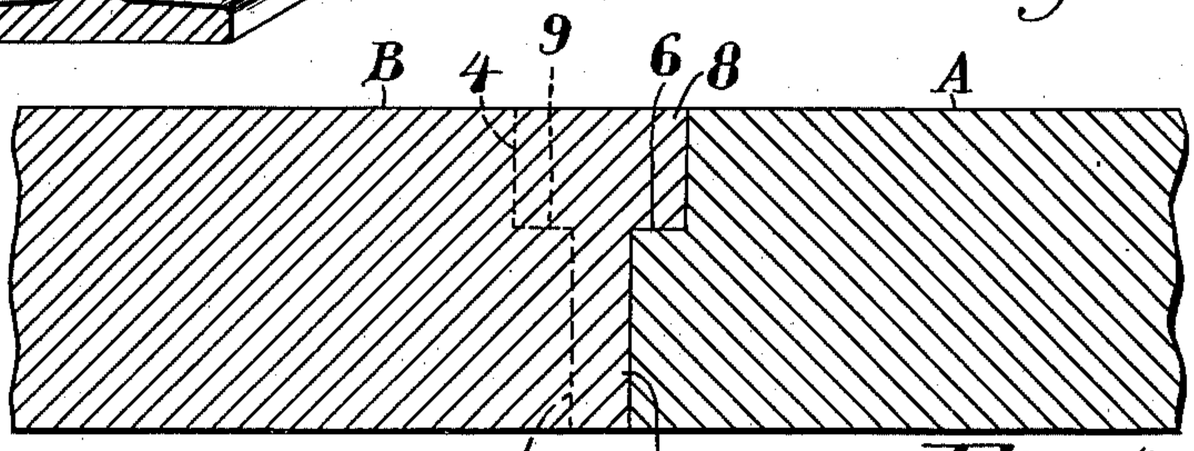
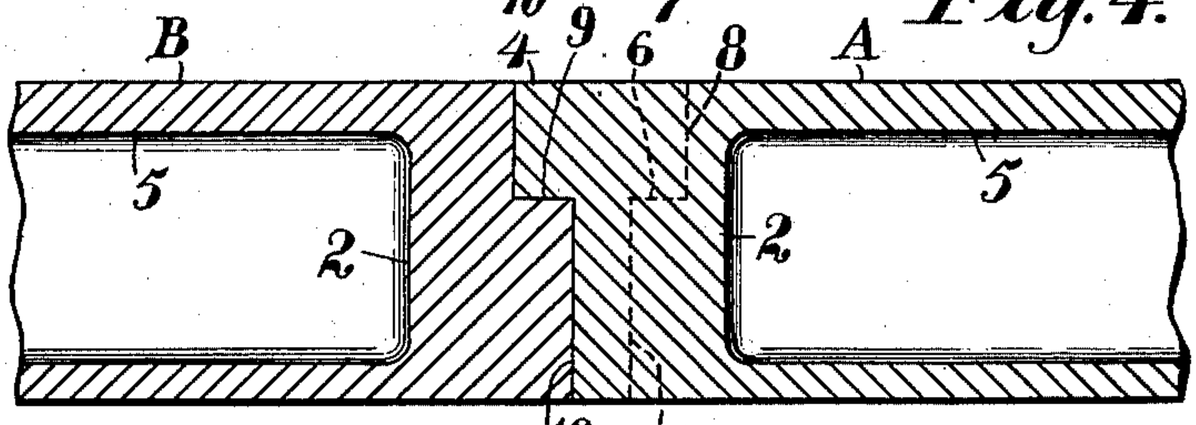


Fig. 4.



Witnesses:-

F. L. Fliedner

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No. 750,490. Patented January 26, 1904.

UNITED STATES PATENT OFFICE.

CHARLES L. POPE, OF ELY, NEVADA.

RAILWAY-RAIL JOINT.

SPECIFICATION forming part of Letters Patent No. 750,490, dated January 26, 1904.

Application filed September 21, 1903. Serial No. 174 010. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. POPE, a citizen of Canada, residing at Ely, in the county of White Pine and State of Nevada, have invented new and useful Improvements in Railway-Rail Joints, of which the following is a specification.

My invention relates to an improved railway-rail joint.

Its object is to provide a labor and time saving means for joining abutting ends of rails in a rigid bond without the use of the usual fish-plates and bolts and to provide a smooth durable joint over which car-trucks may pass in either direction without jar irrespective of the expansion or contraction of the rails.

It consists of the parts and the construction and combination of parts, as hereinafter more fully described, having reference to the accompanying drawings, in which—

Figure 1 is a perspective of two conjoined rails. Fig. 2 is a perspective of the two adjacent rail ends separated. Fig. 3 is a section taken on line *x x* of Fig. 1. Fig. 4 is a section taken on line *y y*, Fig. 1.

A represents one rail having the web portion adjacent to its ends enlarged or widened, as at 2, and B represents an adjoining rail having a similar thickened web portion 2. One end of rail A, as here shown, is provided with the vertical slot 3, extending from top to bottom of the rail, and with the lateral tongues 4, which are continuous with the tread portion 5 of the rail and in the nature of extensions of the walls of slot 3. The slot is extended in its upper portion in the length of the rail to form a ledge or step 6. The adjacent end of rail B has a central vertical constricted tongue 7, with a projection 8 matching slot 3. The portion 7 rests on the ties and forms a support for the part 8, which is a continuation of the tread 5 of rail B and projects beyond the end of the rail a distance equal to the width of ledge 6.

The tread portion of rail B on each side of projection 8 is cut away to form the lateral ledges 9, which are adapted as supports for the lateral tongues 4 of rail A, just as ledge 6 forms a support for the central tongue 8 of rail B.

By reinforcing the ends of the rails, as at 2, extending the slot from top to bottom of one rail, and providing the opposite rail with a corresponding tongue, whereby the parts 4 of the first rail are supported from beneath by the bifurcated web portion 10 and the part 8 of the second rail similarly supported by the portion 7, the rails are held against lateral movement at all points between the bottom and the top of the rails, whether the joint is a close one or a loose one, as where provision is to be made for expansion and contraction the interlocking tread extensions 4 and 8 are not dependent alone for support upon their respective ledges 9 and 6. Finally, and what is most important, by reason of the interlocking and supporting web parts 10 and 7 beneath the tread extensions 4 and 8 the latter are reinforced against the lateral thrust and strain exerted by the flanges of the engine and car wheels, for without the web parts 10 and 7 the tendency of the otherwise attenuated tread portions 4 and 8 would be to wear unduly or bend, particularly on curves, amounting, in effect, to a spreading of the rails.

Rails of this construction may be laid with great rapidity and when spiked to the ties are held securely without the further use of bolts or fish-plates. One rail holds the other and a rail can only be taken out by removing the spikes and lifting both rails.

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

1. A rail-joint comprising a rail having its end provided with an open vertical slot extending from top to bottom of the rail, the upper part of said slot extended backward along the tread of the rail, and the bifurcated portion of the tread on each side of the slot projecting beyond the end of the rail, the opposed rail having a complementary vertical constricted portion matching the slotted portion of the first rail and coacting therewith to support the interlocking tread portions of the rails and to resist side thrust at all points between the bottom and top of the interlocking rail ends.

2. A rail-joint comprising a rail-section having a thickened end provided with a vertical open slot, said slot extended backward along

the tread to form a shoulder 6; said section having the lateral projections 4 extending beyond the slotted web portion of the rail; the opposite rail-section having a thickened end and a constricted web portion fitting the slotted web of the first section, and also having a central projection continuous with its tread and interlocking with the bifurcated tread portion of the first section and supported on shoulder 6; the bifurcated web of the first section and the constricted web portion of the second section serving to support the respective tread projections of the sections and to resist lateral thrust at all points between the bottom and top of the joint.

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

CHARLES L. POPE.

Witnesses:
R. C. WEBER,
E. A. DAVIDSON.