

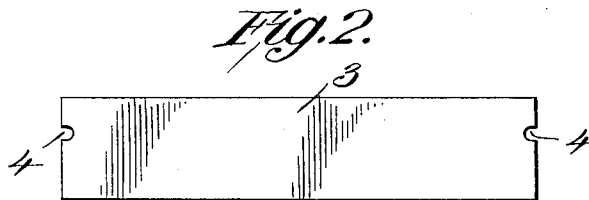
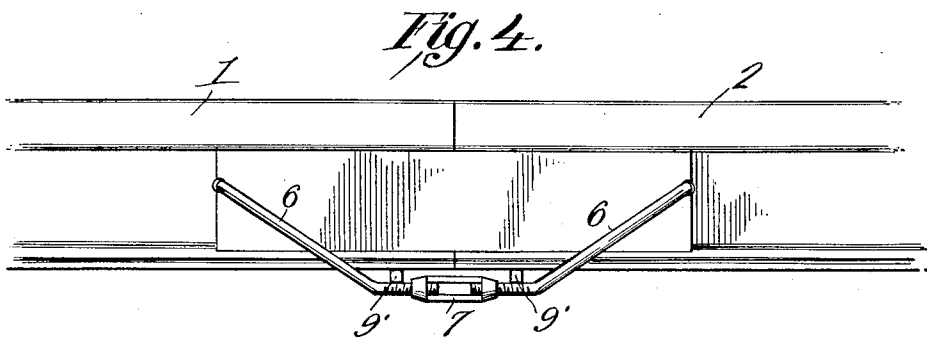
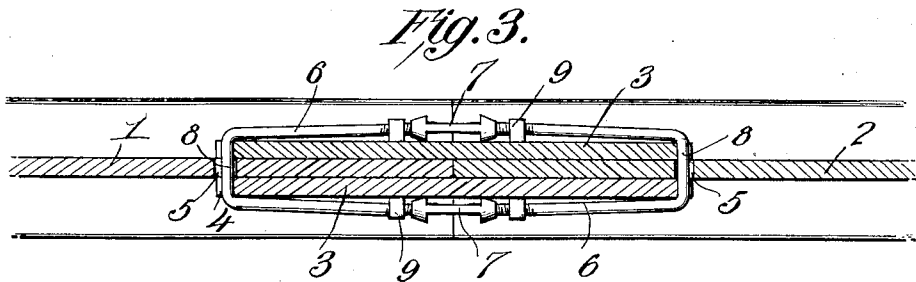
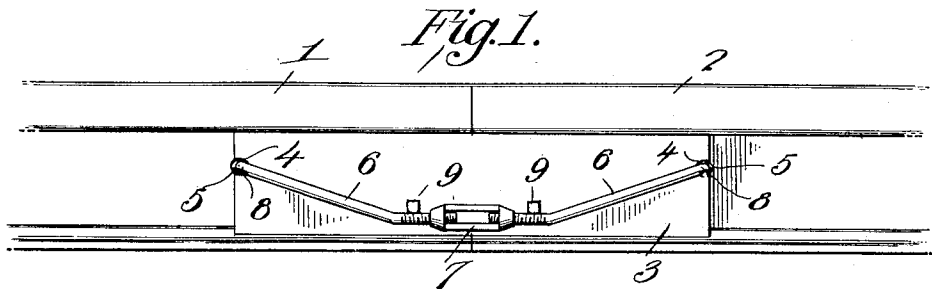
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RAIL JOINT.

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RAIL-JOINT.

1,039,641.

Specification of Letters Patent.

Patented Sept. 24, 1912.

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To all whom it may concern:

Be it known that I, THOMAS BREWER, a citizen of the United States, residing at Homestead, in the county of Dade and State of Florida, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to rail joints, the object in view being to provide a well trussed and thoroughly reinforced rail joint, the construction providing for sustaining the rail ends throughout the entire length of the fish plates applied to opposite sides thereof, and not relying, as heretofore, on the strength of the individual straight bolts which pass through the fish plates or splice bars and webs of the abutting ends of the rails.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts, as will be hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the claims hereunto appended.

In the drawings: Figure 1 is a side elevation of a rail joint, embodying the present invention. Fig. 2 is a side elevation of one of the splice bars. Fig. 3 is a horizontal section through the parts, shown in Fig. 1. Fig. 4 is a view showing a slightly modified form of joint.

Referring to the drawings, 1 and 2 designate the ends of rails adjacent to the joint to be formed in accordance with the present invention.

In carrying out the present invention, I employ oppositely arranged splice bars 3 which, in the main, resemble the splice bars or fish plates now in common use, the same being long enough to receive the usual bolts, some of which are, however, dispensed with in carrying out this invention. At their opposite ends, the splice bars 3 are provided with slots or notches 4, and the webs of the rails 1 and 2 are provided with holes 5 which register with the notches or slots 4.

In connection with the oppositely arranged splice bars and rails, I employ what may be termed a double turn-buckle, the same comprising two U-shaped bolts 6 and nuts 7 for connecting the adjacent ends of the bolts 6, the nuts 7 being of course provided with right and left hand threads to engage the corresponding threaded ends of the bolts 6. The bend or connecting portion 8 of each of

the U-shaped members of the turn-buckle is adapted to pass through one of the holes 5 in the web of the rail, and also through one of the slots or notches 4, and by reason of the bend 8, as the turn-buckle is tightened, the splice bars 3 are drawn tightly and firmly against the rail ends.

Straight bolts 9 are inserted through holes in the splice bars and rails, as shown in Fig. 1, and are made of sufficient length to project over the bolts 6 of the double turn-buckle, as clearly shown in Fig. 1, thereby giving the requisite purchase of the turn-buckle on the joint.

Instead of passing the straight bolts 9 through the rails and splice bars, said bolts, indicated at 9', in Fig. 4, may be passed under the bottom of the rail ends, as shown in said figure, and the U-shaped members of the turn-buckle may be extended under said bolts.

From the foregoing description, it will be understood that a thoroughly braced and trussed rail joint will result from the construction described, and that it will be practically impossible for the nuts of the turn-buckle to become loose, as the turn-buckle nuts rest in contact with the fish plates and prevent accidental turning thereof. It is also practicable to employ the features of this rail joint in connection with the ordinary fish plates now in common use, thus enabling a road already in existence to be equipped with the rail joint features of this invention.

The turn-buckle bolts also admit of the necessary expansion and contraction, and thereby avoid the buckling of the rails. Furthermore, the tightening of the turn-buckles does not draw the ends of the rails together, but creates a lifting power throughout the whole length of the splice bars.

What is claimed is:

1. In a rail joint, the combination with two rail ends, of splice bars at opposite sides of the joint, and a double turn-buckle embodying two U-shaped threaded bolts inserted through the splice bars and rail ends, and nuts at opposite sides of the joint connecting the adjacent threaded ends of the bolts.

2. In a rail joint, the combination with two rail ends, of splice bars at opposite sides of the joint, straight bolts passing through the splice bars and rail ends, and a double

turn-buckle embodying two U-shaped threaded bolts inserted through the splice bars and rail ends and extending under the projecting ends of the straight bolts, and nuts at
5 opposite sides of the joint connecting the adjacent threaded ends of the bolts.

3. In a rail joint, the combination with two rail ends, of splice bars at opposite sides of the joint, straight bolts extending trans-
10 verse of the rail ends, and a double turn-buckle embodying two U-shaped threaded

bolts inserted through the splice bars and rail ends, and nuts at opposite sides of the joint connecting the adjacent threaded ends of the U-shaped bolts.

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

THOMAS BREWER.

Witnesses:

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