

No. 708,531.

Patented Sept. 9, 1902.

W. COLLOTON.
RAIL JOINT.

(Application filed Mar. 26, 1902.)

(No Model.)

Fig. 1.

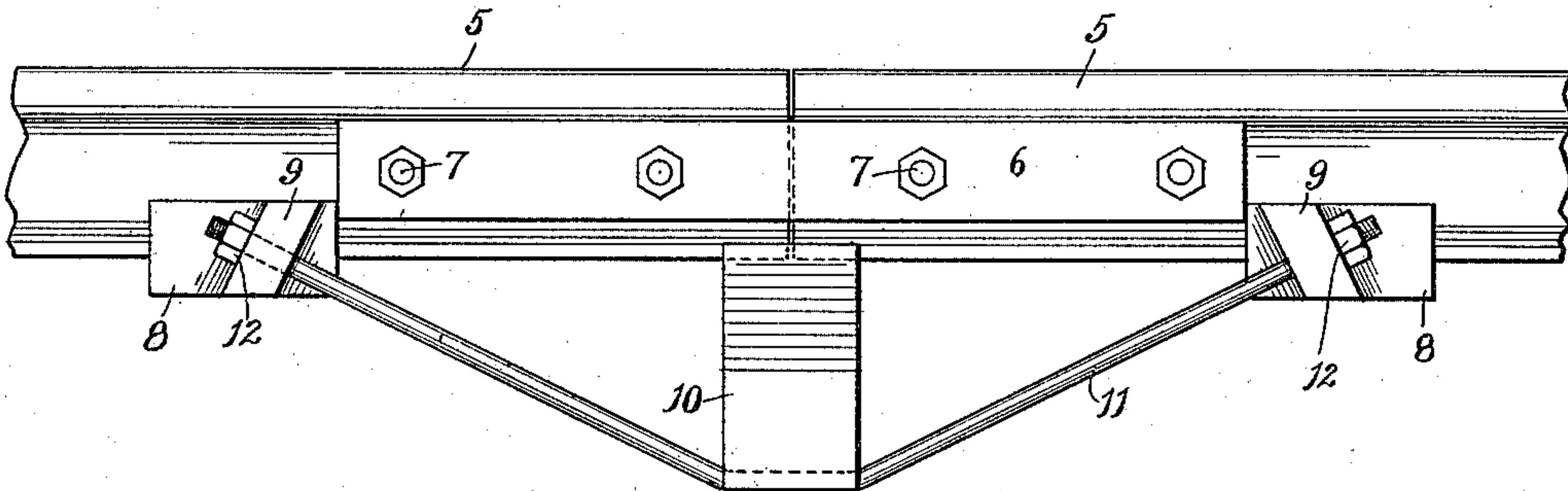


Fig. 2.

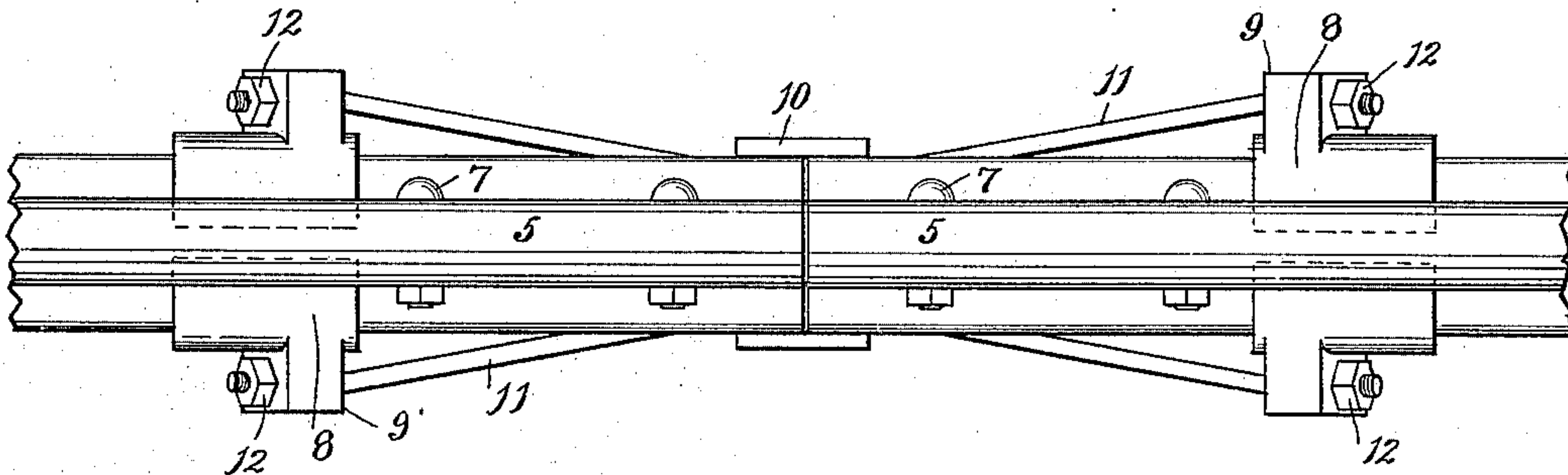


Fig. 3.

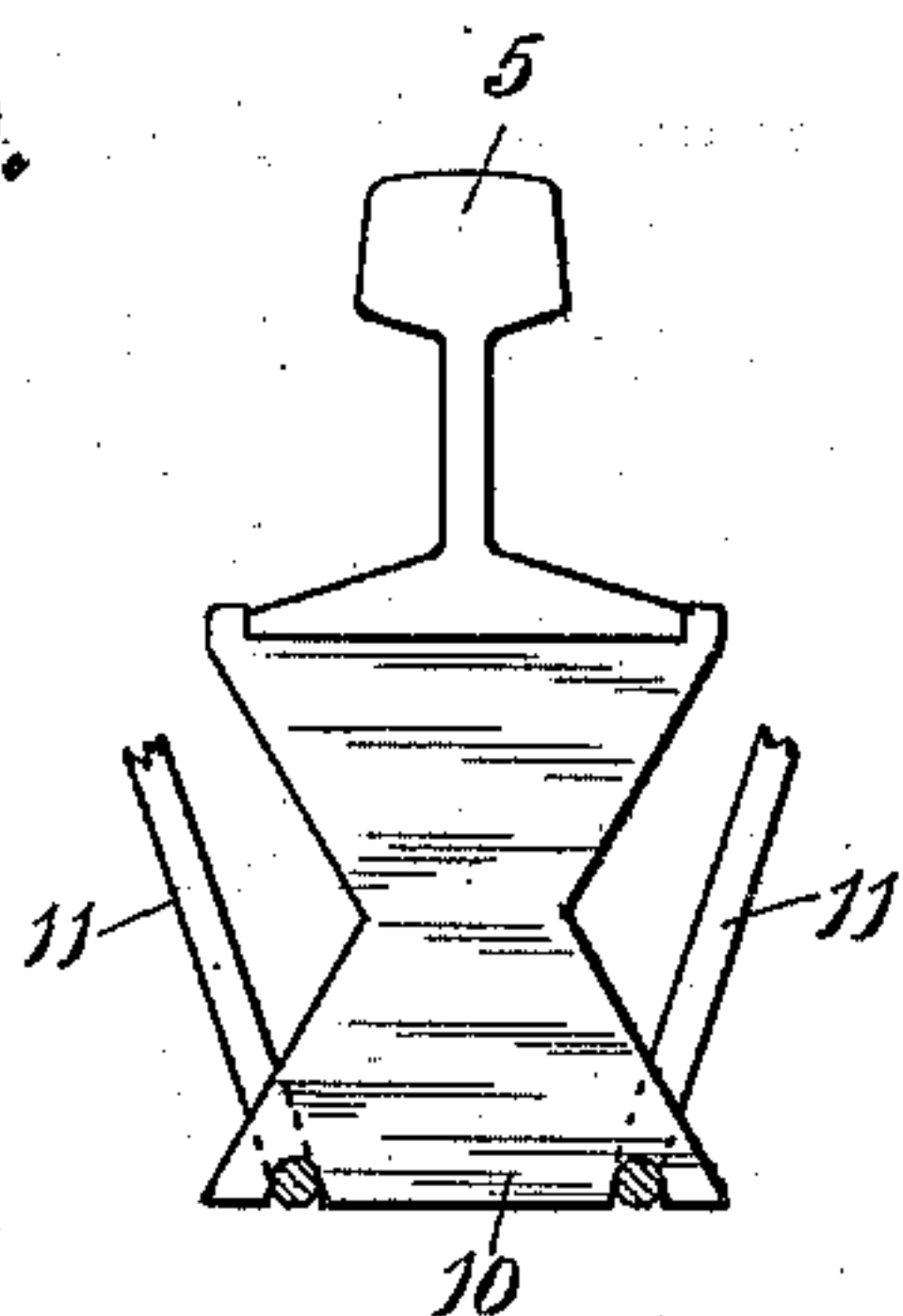
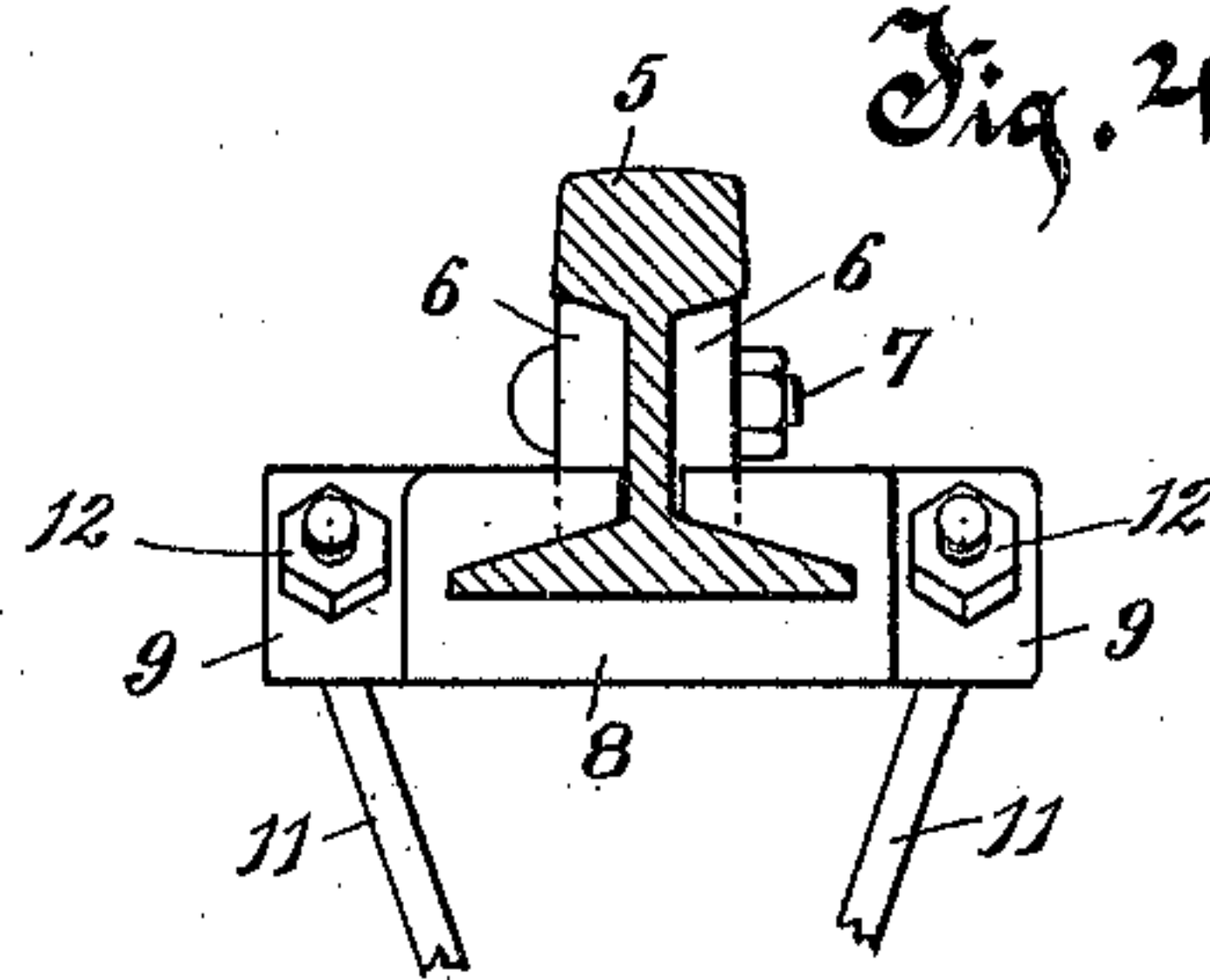


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM COLLOTON, OF MUKWONEGO TOWNSHIP, WISCONSIN.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 708,531, dated September 9, 1902.

Application filed March 26, 1902. Serial No. 100,010. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM COLLOTON, residing at Mukwonego township, in the county of Waukesha and State of Wisconsin, have invented a new and useful Improvement in Rail-Joints, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

10 My invention relates to improved means employed with railway-rails to support the abutting ends of rails in connection with fish-plates or rail-joint chairs.

15 The invention consists of the devices and their combinations as herein described and claimed or the equivalents thereof.

20 In the drawings, Figure 1 is a side elevation of the abutting ends of two railway-rails connected together by fish-plates and my improved devices therewith. Fig. 2 is a top plan view of the abutting ends of two railway-rails with my improved devices therewith. Fig. 3 is an end view of one rail, showing the strut forming a part of my improved construction and fragments of the tension-rods therewith. Fig. 4 is an end view of one of the straining-blocks forming a part of my improved construction with a rail in cross-section therewith.

30 In the drawings, 5 5 represent two railway-rails so disposed with their ends abutting against each other as to form one line of a continuous railway-track. These abutting ends of the rails are secured together by fish-plates 6 6, secured to the rails by bolts 7 7 with nuts in a form in common use. My invention is adapted to be used with fish-plates of this construction or with rail-joint plates of other forms in common use.

40 My improved construction includes two straining-blocks 8 8, having a longitudinal slot therein so formed as to fit about the flange or base of a railway-rail, as shown in Fig. 4, and to come up close to the web of the rail above the base-flange. This adapts the block to be slipped onto the end of the rail before it is laid down in a track, and the block is then slid on the rail against the ends of the fish-plates 6 6, one on each side of the web of the rail. Two of these blocks 8 are employed, one on each of the rails 5 5, and bearing, respectively, against the ends of the fish-plates.

These blocks are each provided with wings 9 9, one on each side thereof, which are advantageously oblique to the length of the block in the direction of the rail-recess. A strut 10 is placed under the abutting ends of the rails 5 5, and tension-rods 11 11, that rest medially on the lower end of the strut 10, extend to and are passed through the wings 9 9 on the blocks 8 8, and these rods are provided with nuts 12 12, turning by screw-threads on the extremities of the rods against the wings on the straining-blocks. By these means a construction is obtained which is in the nature of a truss, whereby the abutting ends of the rails 5 5 are supported against any depression whatever, even under the weight of the heaviest locomotives or loads that travel on them. The strut 10 is advantageously provided with recesses in its lower end for receiving therein the rods 11 11, whereby the rods are held against displacement laterally. Also the upper end of the strut is advantageously provided with a channel or depression into which the bases or flanges of the rails are received, as shown in Fig. 3, and in case joint-plates or chairs are used that extend from the web of the rail around the base or flange of the rail and underneath it the channel or socket in the strut is advantageously made of such width as to receive the chair or joint-plate therein. The wings 9 9, one on each side of each block 8, are advantageously so disposed obliquely to the length of the block that their distant faces are substantially at right angles to the direction of the rods 11, passing through them.

It will be understood that when my improved construction is applied to a rail-joint it will be impossible for the ends of the rails to be depressed either by great weight or by sudden shock between the straining-blocks, because of the bracing or truss-like effort of the tension-rods. Also it will be understood that this construction can be applied to rails independently of the means for connecting the rails to each other, and hence can be applied either to rails connected together by fish-plates or by rail-joint plates of every form whatsoever now in common use.

What I claim as my invention is—

1. In combination, the abutting ends of two rails, joint-plates on and secured to the rails, straining-blocks loose and slidable on

the flanges of the rails bearing against the joint-plates, a strut between the straining-blocks under the ends of the rails, and tension-rods bearing medially on the strut and
5 anchored by tension-nuts to the straining-blocks.

2. Supporting means for a rail-joint, comprising joint-plates secured to the webs of the rails, straining-blocks slidable on the base of
10 the rails and bearing against the ends of the joint-plates, a strut between the straining-blocks under the ends of the rails, and tension-rods bearing medially on the strut and secured adjustably to the straining-blocks.

15 3. Supporting means for a rail-joint, comprising straining-blocks adapted to fit on the

base of the rails and against joint-plates thereon, and provided with laterally-projecting wings, a strut between the straining-blocks under the ends of the rails, tension-rods bearing medially on the outer end of the strut and extending to and passing through the wings on the straining-blocks, and nuts turning by a screw-thread on the ends of the tension-rods and against the wings on the blocks. 20 25

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

WILLIAM COLLOTON.

Witnesses:

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