

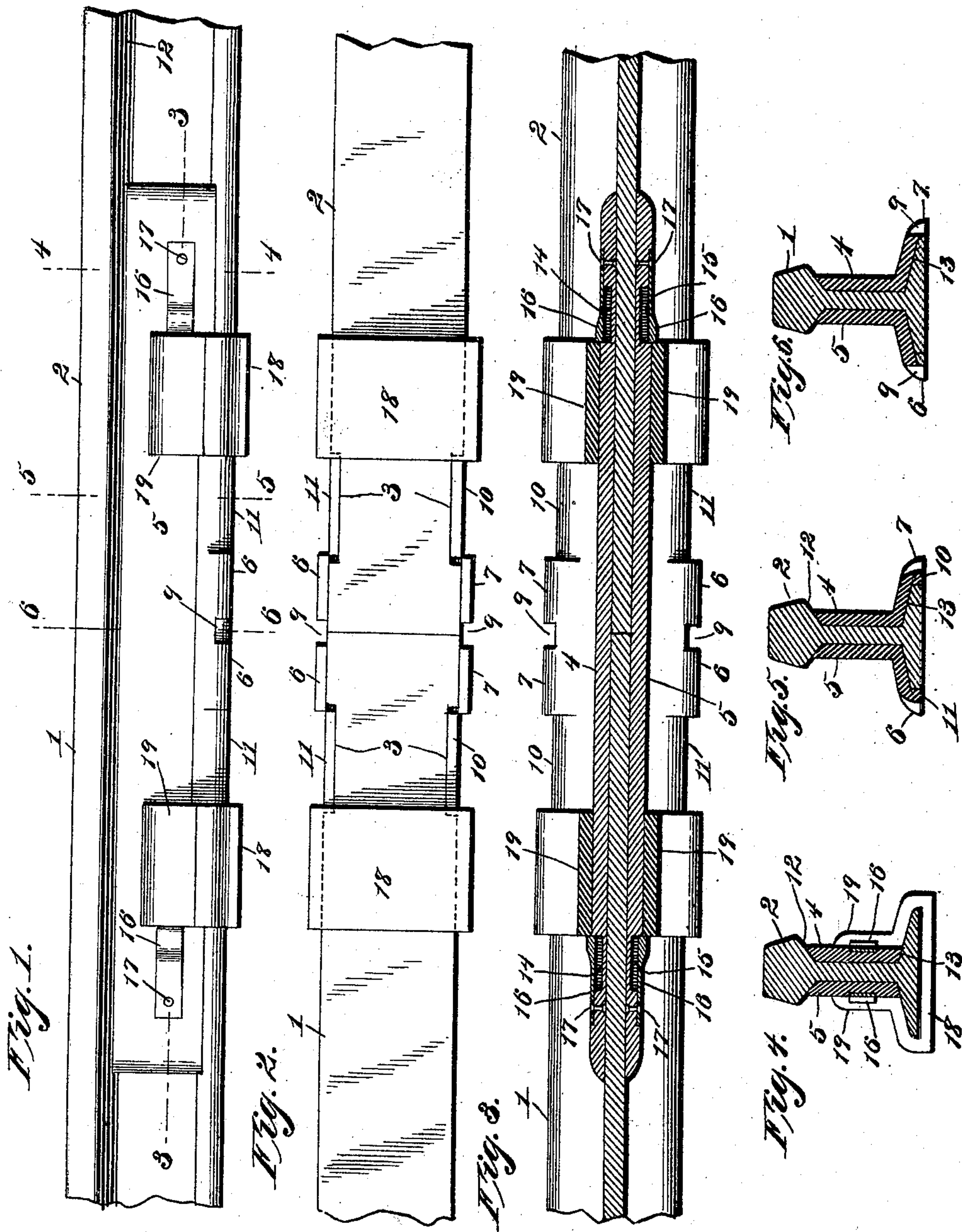
No. 639,183.

F. N. PLOMONDON.  
RAIL JOINT.

Patented Dec. 12, 1899.

(Application filed July 26, 1899.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

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## RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 639,183, dated December 12, 1899.

Application filed July 26, 1899. Serial No. 725,184. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK NORBERT PLOMONDON, a citizen of the United States, residing at Matlock, in the county of Mason and State of Washington, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

My invention relates to rail-joints for railway-rails; and the primary object of the invention is to provide improved means for connecting the abutting ends of rail-sections without the employment of bolts or nuts, thus avoiding the use of nut-locks and the necessity for forming bolt-holes in the ends of the rail-sections.

A further object of the invention is to provide means for securely joining the abutting ends of rail-sections which may be readily applied to the rails and will be effective and durable in use.

The characteristic features of the invention and the details of construction thereof will be fully described hereinafter and defined in the appended claims, in connection with the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation of two rail-sections, to the meeting ends of which my invention is applied. Fig. 2 is a reverse or bottom plan view of Fig. 1. Fig. 3 is a horizontal section on the line 3 3 of Fig. 1; and Figs. 4, 5, and 6 are respectively transverse sections on the lines 4 4, 5 5, and 6 6 of Fig. 1.

The reference-numerals 1 and 2 designate the meeting ends of two sections of rail, each of which has its base recessed at opposite points, as shown at 3.

4 and 5 designate counterpart splice-bars adapted to overlap the ends of the rail-sections and formed on opposite sides with depending flanges 6 and 7, which embrace the edges of the rail-base 8, as shown in Fig. 2. The flanges 6 and 7 are each formed with a recess 9 to adapt them to receive securing-spikes. (Not shown.) Each of the splice-bars 4 and 5 is also provided with two depending flanges 10 and 11 adjacent to the flanges 6 and 7 and adapted to fit the recesses 3 in the rail-base. These recesses 3 are slightly longer than the flanges 10 and 11 to provide for expansion and contraction of the rails.

The splice-bars 4 and 5 are beveled at both their upper and lower edges to adapt them to snugly fit the correspondingly-beveled surfaces 12 and 13 of the head and base of the rail.

Each of the splice-bars 4 and 5 is recessed near each of its ends to form longitudinal seats 14 and 15 for springs 16, which are secured by rivets 17 within said seats.

The splice-bars 4 and 5 are firmly secured in position by two clamps, each comprising a base 18 and counterpart side of flanges 19 of angle form to fit the base of the rail and the outer surfaces of the splice-bars. As shown in Fig. 4, the cross-sectional contour of the clamps corresponds to that of the rail-base and the splice-bars.

To apply my improvement, the clamps are first placed upon the rail-sections (one on each section) far enough to permit of the subsequent application of the splice-bars, which are fitted to place and spiked down. The clamps are then forced over the springs 16 by a few taps of a hammer until they pass the springs and are held against the adjacent flanges 11 by the springs. To disconnect the rails, the oppositely-disposed springs 16 are forced inward by any suitable implement, so that the clamps may be driven past them.

It will be apparent that the joint constructed as above described is firm and secure and that no bolts or nuts are required for use therewith.

I claim—

1. In a rail-joint, the combination with the meeting ends of two rail-sections, recessed at their bases, of splice-bars provided with flanges fitting the recesses in the rail-bases; springs secured to the outer sides of the splice-bars, and clamps adapted to fit over the ends of the splice-bars and be held by said springs.

2. In a rail-joint, the combination with the meeting ends of two rail-sections, recessed at their bases, of splice-bars formed with flanges which engage the edges of the rail-bases, and flanges fitting the recesses of said bases; springs secured to said splice-bars, and clamps adapted to fit over the ends of the rail-sections, and be held by said springs.

3. In a rail-joint, the combination with the meeting ends of two rail-sections, recessed at their bases, of splice-bars formed with de-

pending flanges engaging the edges of the  
rail-bases, and recessed on opposite sides, and  
with supplemental flanges fitting the recesses  
in the rail-bases; springs secured to the outer  
5 sides of the splice-bars, and clamps adapted  
to be driven over said springs into contact  
with said supplemental flanges.

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

FRANK NORBERT PLOMONDON.

Witnesses:

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ED. C. SUITER.