

H. LIPPERT.
RAIL JOINT.
APPLICATION FILED MAR. 13, 1912.

1,037,501.

Patented Sept. 3, 1912.

Fig. 1.

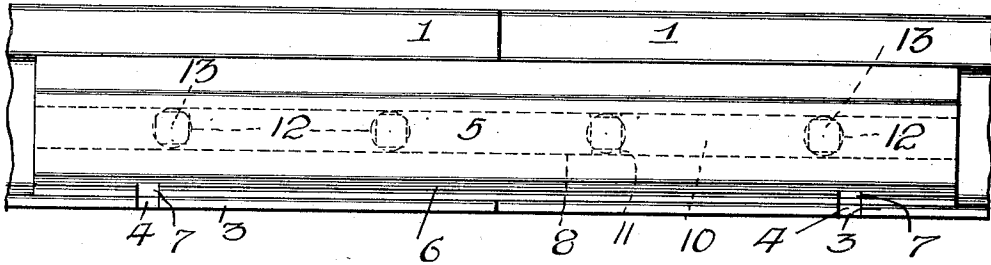


Fig. 2.

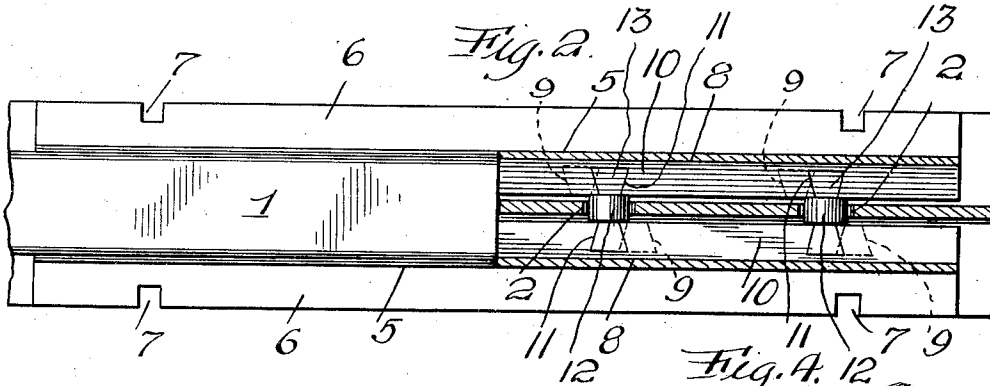


Fig. 3.

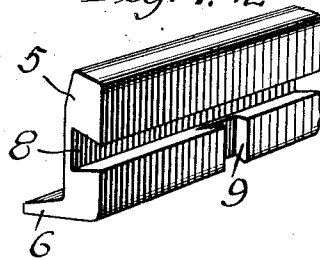
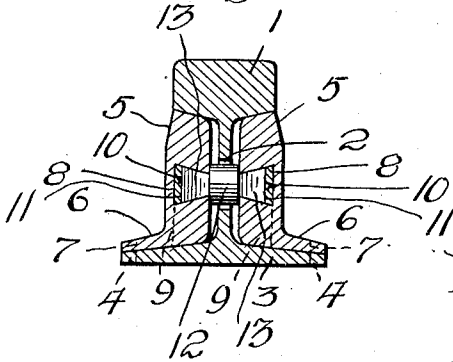


Fig. 5.

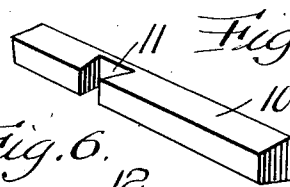
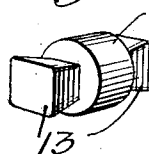


Fig. 6.



WITNESSES

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UNITED STATES PATENT OFFICE.

HENRY LIPPERT, OF CLAIRTON, PENNSYLVANIA.

RAIL-JOINT.

1,037,501.

Specification of Letters Patent.

Patented Sept. 3, 1912.

Application filed March 13, 1912. Serial No. 683,472.

To all whom it may concern:

Be it known that I, HENRY LIPPERT, a citizen of the United States of America, residing at Clairton, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to rail joints, and my invention aims to provide positive and reliable means, as will be hereinafter set forth, for connecting the confronting ends of rails, without resorting to the use of nuts and bolts.

My invention further aims to provide interlocking splice bars that can be easily and quickly placed in position and locked in engagement with the sides of rails.

20 The invention further aims to accomplish the above results by a mechanical construction that is durable and highly efficient for the purposes for which it is intended.

25 The invention will be hereinafter specifically described and then claimed, and reference will now be had to the drawing, wherein:—

Figure 1 is a side elevation of the rail joint, Fig. 2 is a plan of the same, partly broken away and partly in section, Fig. 3 is a cross sectional view of the rail joint, Fig. 4 is a perspective view of a portion of one of the splice bars, Fig. 5 is a perspective view of a portion of a locking bar, and Fig. 6 is a perspective view of one of the pins adapted to form part of the rail joint.

30 The reference numerals 1 denote the confronting ends of rails that are provided with transverse openings 2, said rails having the base flanges 3 thereof provided with spike notches 4.

40 The reference numerals 5 denote splice bars adapted to be placed against the sides of the rails, said splice bars having the lateral flanges 6 thereof provided with spike notches 7 adapted to register with the spike notches 4 of the rails. The inner sides of the splice bars 5 have longitudinal dove-tail grooves 8 confronting the openings 2 in the webs of the rails 1. The inner sides of the splice bars 5, at the lower edges thereof, have vertical dove-tail grooves 9 in communication with the grooves 8.

55 The reference numerals 10 denote dove-tail locking bars movably mounted in the grooves 8, said bars having dove-tail slots

11 adapted to register with the grooves 9 of the splice bars.

The reference numeral 12 denotes pins having the ends thereof provided with dove-tail or tapering heads 13, the heads 13 being 60 dove-tail in two directions, for a purpose that will presently appear.

The providing of each of the splice bars with the grooves 9 permits either one of said bars being utilized to position the pins and a locking bar after which the splice bar with the pins is positioned against one side of the rails, the pins extending through the webs of the rails, the other splice bar and locking bar being then utilized to lock the pins in position. In setting up the joints a locking bar is positioned within the splice bar with the slots in alinement with the grooves 9, the pins are inserted with one head slipped through the grooves 9 into the slots 11, and the locking bar is shifted so that the heads of the pins which are seated in the slots 11 are moved from alinement with the grooves 9. The splice bar is then 80 positioned at the side of the rails, the pins extending through the webs of the rails. The other locking bar is then mounted upon the other heads of the pins after which the other splice bar is slid longitudinally over the locking bar, the latter being flush with the ends of the splice bar so that the grooves of the latter will be out of alinement with the heads of the pins. Spikes placed in the notches 4 and 7 prevent the splice bars from 85 shifting and the confronting ends of the rails are firmly held.

While in the drawing there is illustrated a preferred embodiment of the invention, it is to be understood that the structural 95 elements are susceptible of such variations as fall within the scope of the appended claims.

What I claim is:—

1. In a rail joint, the combination with 100 rails having the webs thereof provided with openings, of splice bars bracing the sides of said rails, said bars having the inner sides thereof provided with longitudinal dove-tail grooves, and the lower edges thereof provided with vertical dove-tail grooves in communication with said longitudinal dove-tail grooves, dove-tail locking bars movably mounted in the longitudinal grooves of said splice bars and having dove-tail slots formed therein adapted to register with the vertical dove-tail grooves of said 110

- splice bars, pins located in the openings of the webs of said rails, and dove-tail heads carried by the ends of said pins and engaging in the slots of said locking bars between
5 the walls of the longitudinal dove-tail grooves of said splice bars, said slots with the heads of the pins therein being positioned out of vertical alinement with the vertical grooves of the splice bars.
- 10 2. In a rail joint, the combination with rails having the webs thereof provided with openings, of splice bars engaging the sides of said webs, said bars having the inner
15 dove-tail grooves, pins arranged in the openings of said rails, dove-tail heads carried by both ends of said pins, and locking bars movably mounted in the grooves of the splice bars and provided with dove-tailed slots for the reception of the heads of said
20 pins, said locking bars preventing longitudinal shifting of said pins and the webs of the rails preventing transverse shifting of the pins.
- In testimony whereof I affix my signature
25 in the presence of two witnesses.
- HENRY LIPPERT.
- Witnesses:
JOHN T. BAKER,
ROSCOE H. BRUNSTETTER.

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