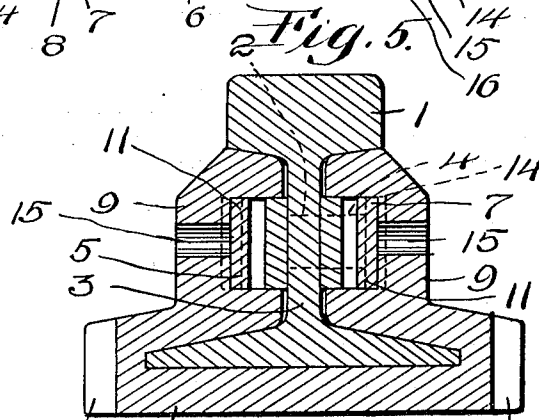
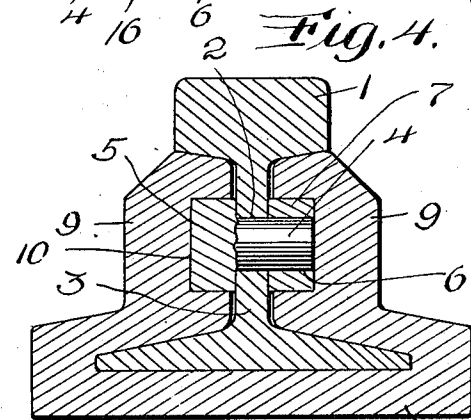
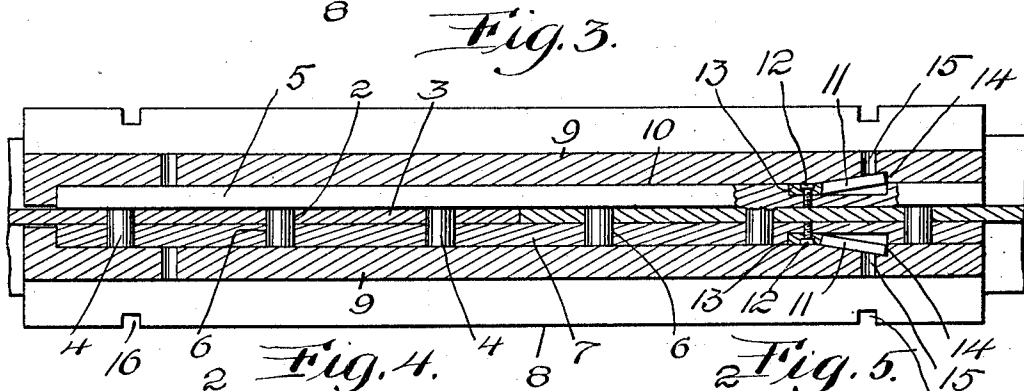
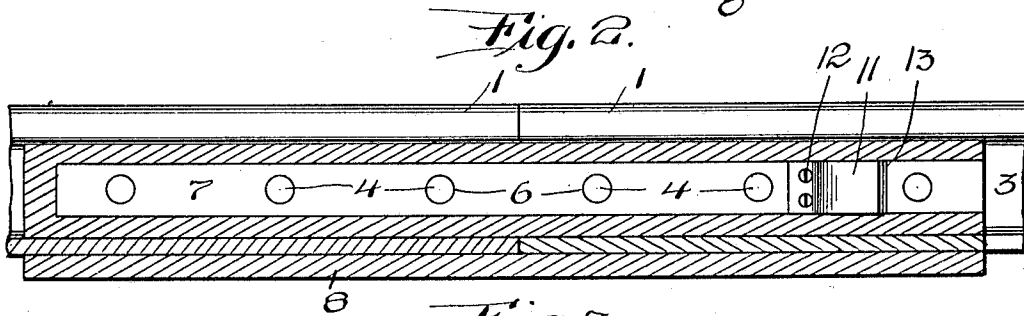
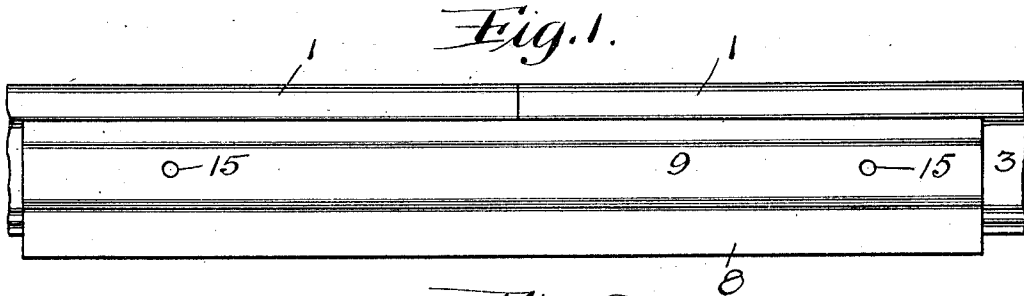


J. G. NOBLE.
RAIL JOINT.
APPLICATION FILED OCT. 11, 1912.

1,051,750.

Patented Jan. 28, 1913.



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JOHN GEORGE NOBLE, OF NEW EAGLE, PENNSYLVANIA.

RAIL-JOINT.

1,051,750.

Specification of Letters Patent.

Patented Jan. 28, 1913.

Application filed October 11, 1912. Serial No. 725,166.

To all whom it may concern:

Be it known that I, JOHN GEORGE NOBLE, a citizen of the United States of America, residing at New Eagle, in the county of Washington 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 a rail joint, and the objects of my invention are to provide positive and reliable means, as hereinafter set forth, for connecting the confronting or abutting ends of rails, whereby the rails cannot become laterally or vertically displaced, and to provide a rail joint embodying a chair that affords a continuous tread or support for the great weight of rolling stock, eliminating the jarring and bumping generally experienced when passing over a joint.

Other objects of my invention are to provide a rail joint that can be easily and quickly installed without any danger of the same being tampered with to cause a wreck, and to provide rail fasteners that obviate the services of a track walker.

Further objects of my invention are to provide a strong and durable rail fastener that can be used in connection with various types of rails, and to accomplish the above results by a mechanical construction that is inexpensive to manufacture and highly efficient for the purposes for which it is intended.

With the above and other objects in view the invention resides in the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing, wherein:—

Figure 1 is a side elevation of a joint in accordance with this invention, Fig. 2 is a longitudinal sectional view of the same, Fig. 3 is a horizontal sectional view of the rail joint, and Figs. 4 and 5 are enlarged cross sectional views of the same.

Further describing my invention in detail with reference to the accompanying drawing, wherein like numerals denote corresponding parts throughout: 1 denotes the confronting or abutting ends of rails that have transverse openings 2 in the webs 3 thereof. These openings accommodate pins 4 carried by a side bar 5 arranged against

the webs 3 of the rails. The pins 4 extend into openings 6 provided therefor in an inner side bar 7. 8 denotes a rail chair supporting the base flanges of said rails, said chair having integral splice bars 9 bracing the sides of the rails. The confronting sides of the splice bars 9 are provided with longitudinal grooves 10 to receive the side bars 5 and 7. The grooves 10 extend from one end of the chair to a point in proximity to the opposite end of the chair, whereby it will be necessary to shift the rail chair in one direction in order to seat the side bars 5 and 7 in the grooves 10.

11 denotes resilient arms having the ends thereof secured by screws 12 in longitudinal recesses 13 provided therefor in the side bars 5 and 7, at one end thereof. The resilient arms are adapted to engage shoulders 14 formed in the confronting sides of the splice bars 9, said arms springing into engagement with said shoulders when the side bars 5 and 7 are seated in the grooves 10.

15 denotes transverse openings in the splice bars 9 and it is through the medium of these openings that easy access is had to the resilient arms 11 to shift said arms into the recesses 13, whereby the chair can be removed from the side bars 5 and 7 and the rail joint disassembled. A special device, forming the subject matter of a companion application filed under even date, is employed for this purpose.

The rail chair has the longitudinal edges thereof provided with spike notches 16, whereby said chair can be easily secured to ties or sleepers (not shown).

To assemble the rail joint, a conventional procedure is as follows: The chair is slipped onto one of the rails, the ends of the rails placed together, the side bars 5 and 7 placed in position, and then the chair shifted lengthwise of the rails until the side bars 5 and 7 are seated in the grooves 10 of the splice bars. The resilient arms 11 snap or spring into position and lock the chair in engagement with the side bars, while the side bars are locked in engagement with the rails through the medium of the pins 4.

It is thought that the utility of a rail joint in accordance with this invention will be apparent without further description, and while in the drawing there is illustrated a preferred embodiment of the invention, it is to be understood that the structural elements are susceptible of such variations and

modifications as fall within the scope of the appended claims.

What I claim is:—

1. In a rail joint, the combination with
5 rails having transverse openings in the webs thereof, of side bars, pins carried by one of said side bars and extending through the openings of said rails into openings provided therefor in the other of said side bars,
10 resilient arms carried by said side bars at one end thereof, and a rail chair adapted to be shifted into engagement with said side bars and locked in engagement therewith by said resilient arms.
- 15 2. In a rail joint, the combination with rails, of side bars arranged against the sides thereof, pins carried by one of said bars and extending through said rails into the other of said bars, resilient arms carried by
20 said bars at one end thereof, and a rail

chair having longitudinal grooves formed therein to receive said bars, said chair having shoulders adapted to be engaged by said resilient arms to lock said side bars seated in the grooves of said chair. 25

3. In a rail joint, the combination with rails, of side bars arranged against the sides of said rails and locked against longitudinal movement relatively to said rails, resilient arms carried by said side bars, and a rail
30 chair adapted to inclose said side bars and be locked in engagement therewith by said resilient arms.

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

JOHN GEORGE NOBLE.

Witnesses:

N. F. DUNN,
MINNIE McFADDEN.

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