

E. J. SLUSSER.
RAIL JOINT.
APPLICATION FILED FEB. 26, 1913.

1,061,333.

Patented May 13, 1913.

Fig. 1

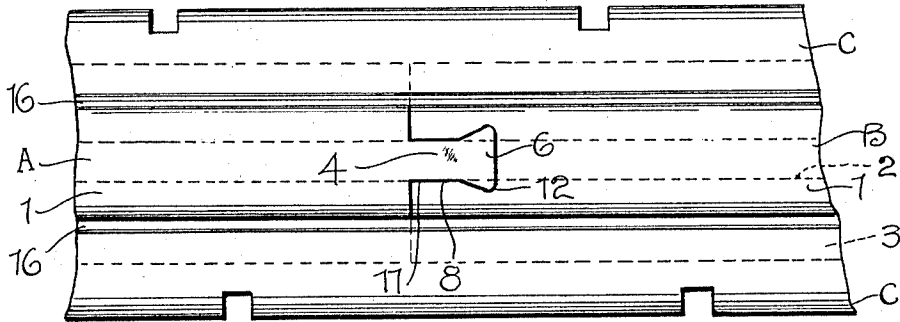


Fig. 2

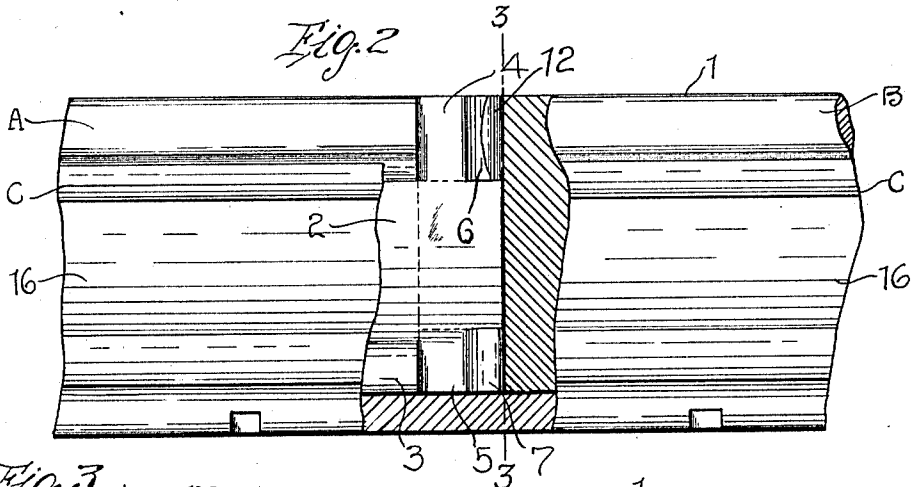


Fig. 3

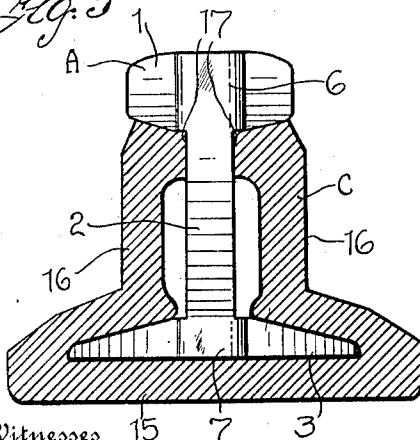
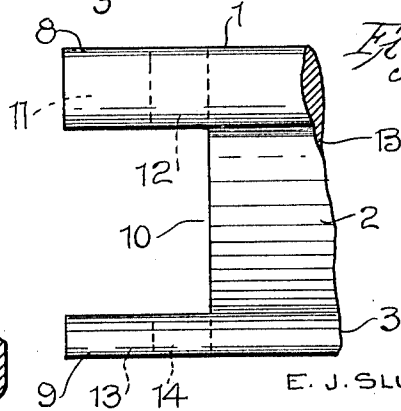


Fig. 4



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RAIL-JOINT.

1,061,333.

Specification of Letters Patent.

Patented May 13, 1913.

Application filed February 26, 1913. Serial No. 750,901.

To all whom it may concern:

Be it known that I, EDWIN J. SLUSSER, a citizen of the United States, residing at Freeland, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in rail joints, and more particularly to that class of joints in which interlocking engagement is formed between the meeting ends of a pair of rails, without the use of bolts or other fastening means.

An object of this invention is the provision of a rail joint of this character, in which the meeting ends of a pair of rails are locked together without increasing the width of the web of either rail, whereby the joint chair which holds the rails in interlocking engagement may be the same width for its entire length.

A further object of this invention is the provision of a rail joint in which one of the rail ends is provided with a reduced tread and base flange, the extremity of the tread and base flange being formed with an enlarged head, and the other rail end having its web cut away to form a recess to receive the web of the first rail, and also having a slot formed in its tread and base flange to receive the reduced tread and base flange of the first rail.

With these and other objects in view, my invention consists in certain novel constructions, combinations, and arrangements of parts, to be hereinafter more fully described, claimed and illustrated in the accompanying drawing, in which—

Figure 1 is a top plan view of my invention; Fig. 2 is a side elevation thereof, partly in section; Fig. 3 is a section on the line 3—3 of Fig. 2; and Fig. 4 is a fragmentary side elevation of one end of one of the rails.

Referring more particularly to the drawing, the letters A and B designate the meeting ends of a pair of rails, and C, a joint chair for holding the rails in interlocking engagement with each other. Each of the rails A and B is formed with the usual tread 1, web 2 and base flange 3, the rail A being formed at its end with a reduced tread portion 4 and base flange 5. The reduced portions of the tread and the base flange are of

the same thickness as the web 2 of the rail, and the extremities of these portions are formed with enlarged heads 6 and 7.

The tread portion 1 and the base flange 3 of the rail B project beyond the web 2 thereof as at 8 and 9 respectively, to a distance substantially the length of the reduced portions of the tread and base flange of the rail A, thereby forming a recess 10 to receive the extremity of the web 2 of the rail A. The projecting portion 8 of the tread of the rail B is formed with a longitudinally extending slot 11, the inner end of which is enlarged as at 12, and the projecting portion 9 of the base flange is also formed with a similar slot 13 which is enlarged at its inner end as at 14. From the drawing, it will be seen that when the rails are connected, the enlarged portions 6 and 7 of the rail A engage in the enlarged inner ends of the slots in the rail B, thereby forming a firm locking engagement between the rails. When the rails are connected together, the chair C which comprises a rectangular plate 15 having its opposite longitudinal edges bent as at 16, to conform to the shape of the rail, will engage over the meeting inner ends of the rails to securely hold them in interlocking engagement with each other. The upstanding portions 16 of the rail chair are formed with enlargements 17 on their inner faces at their upper extremity, the portions 17 of the chair being adapted to bear against the webs of the rails A and B, for the entire length of the chair.

In the practical use of my device, when it is desired to connect the rails, the opposed end of the rail A is raised slightly from the ground, so that the extremity of the web 2 below the enlargement 6 of the tread portion of the rail may be slidably engaged in the slot 11 of the tread portion of the rail B, whereupon the rail A is moved in the slot 11 until the enlarged portions 6 and 7 thereof are arranged in vertical alinement with the enlarged portions 12 and 14 of the slots, and the end of the rail A is then lowered so that the enlarged portions 6 and 7 engage in the enlarged inner ends of the slots 11 and 13 to lock the rails together. When the chair C is arranged to engage the meeting ends of the rails, it will be seen that the rails are held in interlocking engagement with each other without the use of bolts or any other fastening devices of this character.

Having thus fully described my invention, what I desire to claim and secure by Letters Patent is:

1. A rail joint comprising the meeting
5 ends of a pair of rails, one of said rail ends having a reduced tread and a reduced base flange, the other rail end having its tread and base flange projecting beyond the web
10 portion thereof a distance substantially the length of the reduced portions of the tread and base flange of the first rail, means formed on the treads and base flanges of the rails for locking the rails together, and
15 means for holding said rails in interlocking engagement with each other, as and for the purpose described.

2. A rail joint comprising the meeting
ends of a pair of rails, one of said rails
20 being formed with a reduced tread and a reduced base flange, the extremities of the reduced portions of said tread and base flange being formed with enlarged heads, the other rail end having its tread and rail
25 flange projecting beyond the web thereof, means whereby the enlarged portions of the tread and base flange of the first rail may be interlockingly engaged with the projecting
30 portions of the tread and base flange of the second rail, and means for holding said rails in interlocking engagement with each other, as and for the purpose described.

3. In a joint chair, a rail having a reduced tread and a reduced base flange at
35 one end thereof, the extremities of the reduced portions of said tread and base flange being formed with enlarged heads, a second rail having its tread and base flange projecting beyond the web portion thereof, the
40 projecting portions of said tread and base flange being formed with slots, the slots in said tread and base flange of the second rail being enlarged at their inner ends, to re-

ceive the enlarged heads of the reduced portions of the tread and base flange of the first rail, and means for holding said rails in interlocking engagement with each other. 45

4. A rail joint comprising the meeting
ends of a pair of rails, one of said rails having a reduced tread and a reduced base flange, the other rail having its tread and base
50 flange projecting beyond the web portion thereof, the projecting portions of the last mentioned rail being formed with slots to receive the reduced tread and reduced base
55 flange of the first mentioned rail, as and for the purpose described.

5. In a joint chair, a rail having a reduced tread and a reduced base flange at one end thereof, the reduced portions of said tread and base flange being of a width substantially
60 the width of the web of the rail, the extremities of the reduced portions of said tread and base flange being formed with enlarged heads, a second rail having its tread and base flange projecting beyond the
65 web portion thereof, the projecting portions of said tread and base flange of the second rail being formed with slots of substantially the same width as the width of the web of said rail, the slots in said tread and base
70 flange of the second rail being enlarged at their inner ends to receive the enlarged heads of the reduced portions of the tread and base flange of the first rail, and means
75 for holding said rails in interlocking engagement with each other, as and for the purpose described.

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

EDWIN J. SLUSSER.

Witnesses:

S. E. OVERRENDER,
J. H. TREVASKIS.

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