

J. E. FOOTE.
RAIL JOINT FASTENER.
APPLICATION FILED NOV. 6, 1911.

1,021,514.

Patented Mar. 26, 1912.

2 SHEETS—SHEET 1.

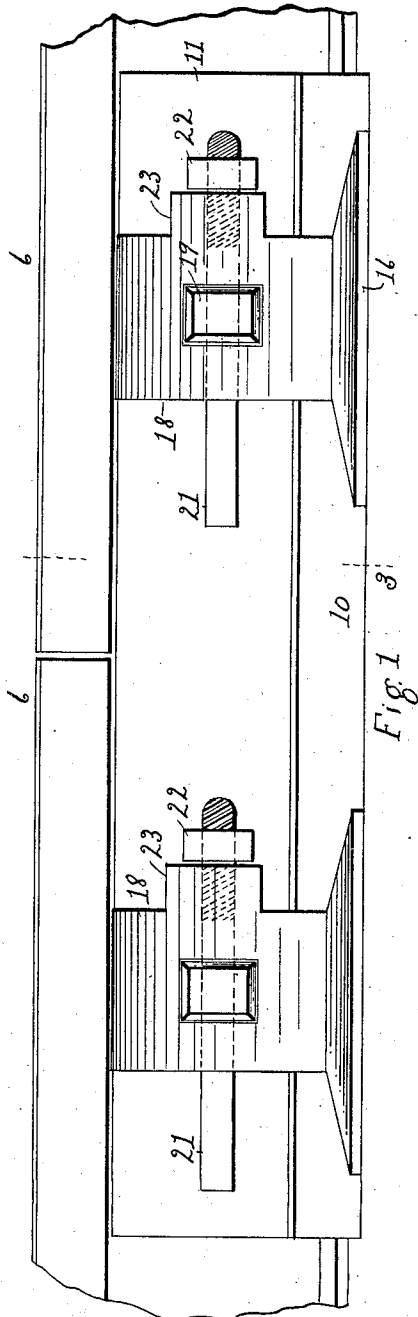


Fig. 1

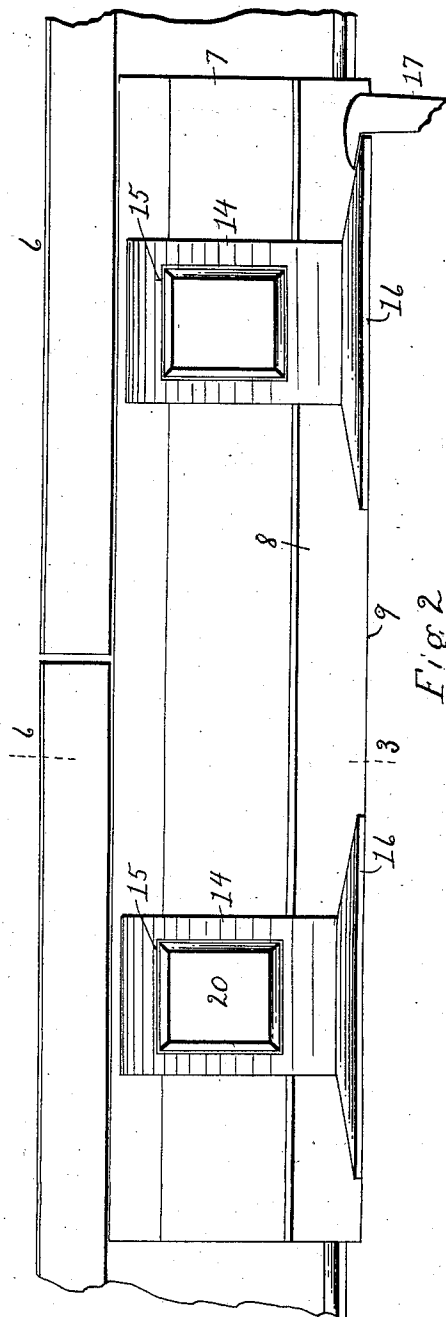


Fig. 2

Witnesses:
B. Rosen
J. M. Stark

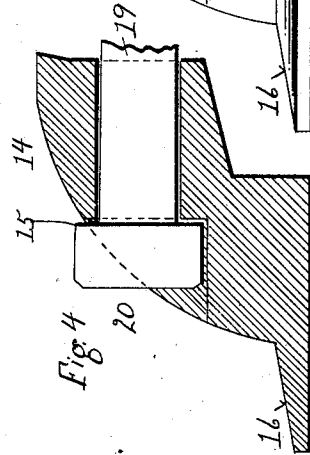
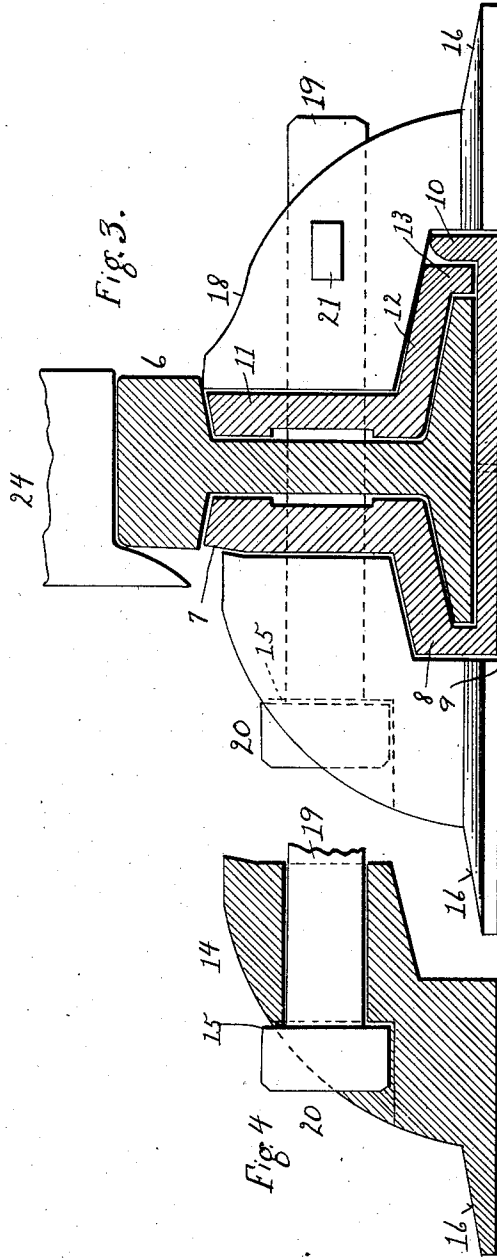
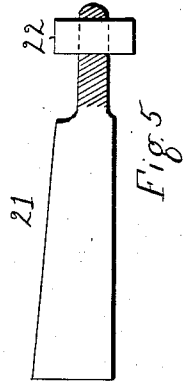
Inventor
Julian E. Foote
By J. A. Rosen
att.

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J. M. Stark

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att'y

UNITED STATES PATENT OFFICE.

JULIAN E. FOOTE, OF TOPEKA, KANSAS.

RAIL-JOINT FASTENER.

1,021,514.

Specification of Letters Patent.

Patented Mar. 26, 1912.

Application filed November 6, 1911. Serial No. 658,681.

To all whom it may concern:

Be it known that I, JULIAN E. FOOTE, citizen of the United States, residing at Topeka, in the county of Shawnee and State of Kansas, have invented certain new and useful Improvements in Rail-Joint Fasteners, of which the following is a specification.

It is the object of my invention to provide a rail-joint fastener that will, in connection with the rail-joint, clamp the ends of the two contiguous rails together securely and firmly, doing away at the same time with the ordinary bolts and nuts, and using pins in their places. I accomplish this object by the use, in connection with a rail-joint comprising two parts one of which forms a seat for the rail ends, of two pairs of clamps, or chairs, each pair being clamped against opposite sides of the rail-joint and fastened firmly to the same by means of a draw-pin, using a wedge-shaped retaining pin for drawing up the parts and holding them securely together. And my invention consists further of the parts, improvements, and combinations hereinafter set forth and claimed.

In the drawings accompanying and forming part of this specification and in the description of the drawing, I have shown my invention in its preferred form, and have shown what I deem to be the best mode of applying the principles thereof, but it is to be understood that I contemplate, within the scope of the appended claims, changes in form, proportions, materials, the transposition of parts, and the substitution of equivalent members, without departing from the spirit of my invention.

Figures 1 and 2 are side elevations of the contiguous ends of two rails with my device applied thereto, showing opposite sides respectively. Fig. 3 is a sectional view taken through the line 3 of Figs. 1 and 2. Fig. 4 is a sectional view of one of the clamping members. Fig. 5 is a view of the securing pin.

Similar reference characters indicate like or corresponding parts throughout the several views.

6, 6 are the two ends of the rails. One member of the rail-joint comprises the part 7, embracing one side of the web of the rail, the part 8 which embraces the top and outer edge of the rail base, and the part 9 which forms the foundation or under support for

the rail ends; also it has the rib 10 for a purpose hereinafter explained. The other member of the rail-joint comprises the part 11 embracing the other side of the web of the rail, the part 12 which embraces the top of the rail base, and the short rib 13 which embraces the outer edge of the rail-base. The parts are so formed that when assembled on the rails, the part 13 fits snugly between the outer edge of the rail base and the rib 10; this arrangement preventing lateral displacement of any of the parts. The parts may be assembled by first applying one member of the rail-joint, and then inserting the other by pushing it in lengthwise from the end of the first-placed member.

Each rail-joint fastener comprises two parts, each part being so formed as to embrace the rail-joint on the side opposite the other. One member, 14, is formed with a shoulder 15, and with a flanged base, 16, whereby it may be secured to the tie by means of spikes, 17. The other member 18 is also provided with the flanged base 16.

19 is a draw-pin, preferably of rectangular shape in cross section, being slightly higher than wide, and adapted to pass through similarly shaped holes in the rail, the rail-joint, and the clamping members, with its head 20 resting against the shoulder 15.

21 is a wedge-shaped pin passing through the member 18 and the draw-pin 19, and having a nut 22 threaded on its smaller end. The two members are placed on opposite sides of the rail and rail-joint, the member 14 on the inside of the rail, and the pin 19 passed through the several parts as indicated. The wedge-shaped pin 21 is then driven in tight, drawing the parts firmly together, and the nut 22 is then screwed on tight. Preferably I make the member 18 with a boss 23 against which the nut may bear. This allows a somewhat longer threaded portion of the wedge-shaped pin, so as to give a greater range in drawing up the draw-pin.

Preferably there are two pairs of the fasteners for each joint, as indicated in Figs. 1 and 2; but obviously any suitable number may be employed.

To remove the rail, the draw-pin, the member 18, and the members 11, 12, 13, should be removed, after which the rail may

be removed from the track by tilting it so as to clear the rib 10, and then pushing it out sidewise.

What I claim is:

5 1. The combination with two rail-joint members, one of said members being formed to embrace one side of the rail web, and the upper side and the outer edge of the rail base, and the other member being formed to
10 embrace the side of the rail web, the upper side and outer edge of the rail base, the under side of the rail base, the lower edge of the first-named member, and having a rib embracing the outer edge of the lower part
15 of said other member; of two pairs of clamping members, each pair comprising two members embracing respectively opposite sides of said rail-joint, a draw-pin passing through all said members, a wedge-shaped
20 retaining pin for drawing up and holding firmly the draw-pin, and a nut threaded onto the retaining pin for holding the same in place.

2. The combination with two rail-joint

members, one of said members being formed 25 to embrace one side of the rail web, and the upper side and the outer edge of the rail base, and the other member being formed to embrace the side of the rail web, the upper side and outer edge of the rail base, the un- 30 der side of the rail base and the lower edge of the first-named member, and having a rib embracing the outer edge of the lower part of said other member; of a clamping member adapted to fit against the side of the 35 rail-joint members, a draw-pin passing through all said members, a wedge-shaped retaining pin passing through the draw-pin and bearing against said clamping member, and a nut threaded onto the retaining pin 40 for holding the same in place.

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

JULIAN E. FOOTE.

Witnesses:

C. J. ROSEN,
J. M. STARK.

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