

(No Model.)

D. ROHLFING.
RAILWAY RAIL JOINT.

No. 415,422.

Patented Nov. 19, 1889.

Fig. 4.

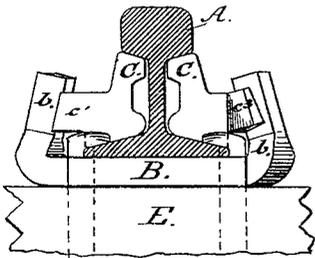


Fig. 1.

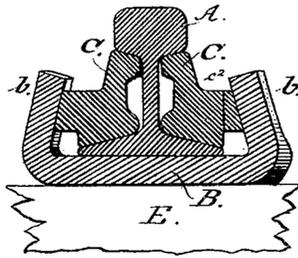


Fig. 5.

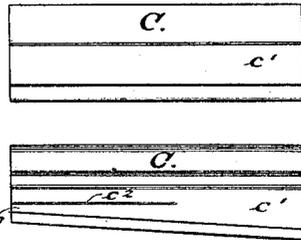


Fig. 2.

Fig. 6.

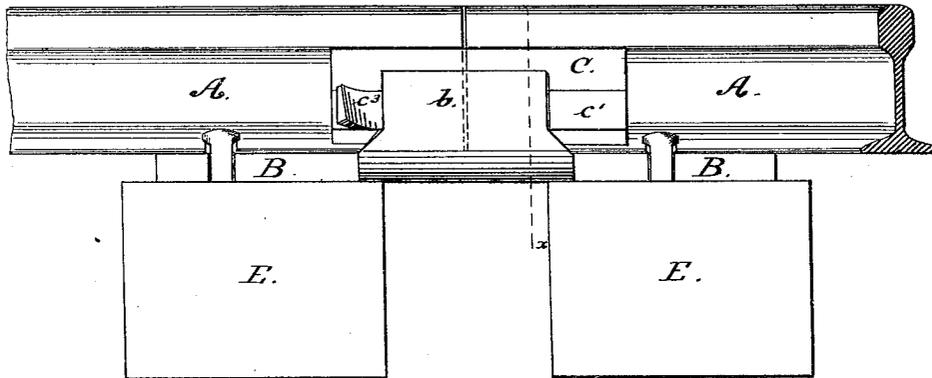
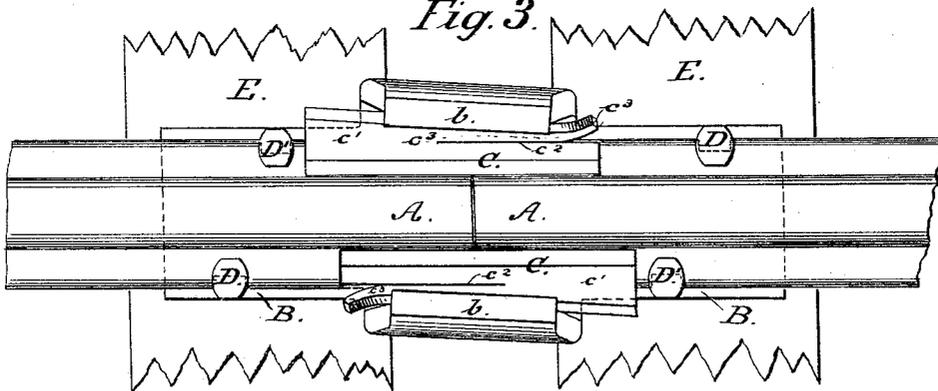


Fig. 3.



WITNESSES:

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RAILWAY-RAIL JOINT.

SPECIFICATION forming part of Letters Patent No. 415,422, dated November 19, 1889.

Application filed February 2, 1889. Serial No. 298,541. (No model.)

To all whom it may concern:

Be it known that I, DIEDRICH ROHLFING, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented a new and useful Railway-Rail Joint; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the drawings which form a part of this specification.

Figure 1 shows a transverse section on line $x x$, Fig. 2. Fig. 2 shows a side view. Fig. 3 shows a top view. Fig. 4 shows an end view of the joint. Fig. 5 shows a side view, and Fig. 6 shows a top view, of the side bar C.

The object of my invention is to provide a railway-rail joint which is simple, effective, secure, and which is easily applied, tightened or adjusted, and removed.

A A are the rails to be joined.

B is a plate which rests upon two ties E E. This plate B has two side flanges $b b$, which form a sleeve or clamp. The plate B gives a large bearing-surface on the ties E E and keeps the rail ends always on the same level, so that as the load passes over the joint the end of the loaded rail cannot sink below the end of the receiving-rail, thus preventing the battering of the rail ends and preserving the uniformity of the deflection-wave as it passes along the rail and over the joint. The flanges $b b$ of the plate B, which form the clamp or sleeve, hold the side bars C C in place and strengthen the plate. A load passing over the joint will tend to deflect the flanges $b b$ toward each other, thus bringing the side bars C C into closer bearing contact with the head and base of the rails.

The side bars C C are shaped somewhat like the ordinary angle-bar—that is, they have a bearing against the under side of the rail-head and top of rail-base. Their principal function is to guide the heads of the rails at the joints, keeping them in exact line. By virtue of their shortness and of their being held by a flexible clamp they cause only a slight change in the uniformity of the deflection-wave. The wedge-shaped part c' has a slit c^2 for a part of its length, as can be readily seen in the

drawings. As the side bars C C are driven into place, a tool held in the slit forces the portions $c^2 c^2$ outward around the edges of the sleeve b , locking the bars firmly in position and producing a secure and elastic joint. The two side bars C C are alike and are interchangeable. They are driven into the sleeve $b b$ from opposite directions.

When the parts of the joint are loosely put together by careless workmen, or become loose by wear, they can be easily tightened or adjusted by driving the side bars to a firm set, at the same time forcing the slit farther open.

The joint is put together in the following manner: The plate B is placed on the ties, the rails A A laid down, and the spikes D D driven. The side bars C C are driven to a firm bearing, at the same time forcing open the slits $c^2 c^2$, and then the spikes D' D' driven. These spikes D' D', besides fastening rail and plate to the tie, guard against the possibility of the side bars C C coming out of the sleeve in case they are not properly secured.

The side bars C C can be made in two pieces by making the main body of the bar of uniform section and fastening to it the wedge-shaped piece designated as c' in the drawings. They can also be made by attaching this wedge-shaped piece c' to the angle splice-bar much used in railway-rail joints.

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

The combination, with the railway-rails A A, of a plate B, with side flanges $b b$, resting on two ties E E and forming a bridge supporting the rail ends between the ties, the side flanges forming a clamp or sleeve to contain the side bars C C and to strengthen the plate, and the side bars C C, each having a wedge-shaped rib c' , which has a slit c^2 for a portion of its length, all substantially as and for the purpose specified.

DIEDRICH ROHLFING.

Witnesses:

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