

J. WOOD.
Railway Frogs.

No. 140,332.

Patented June 24, 1873.

Fig. 1.

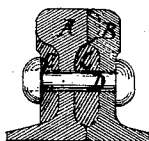


Fig. 2.

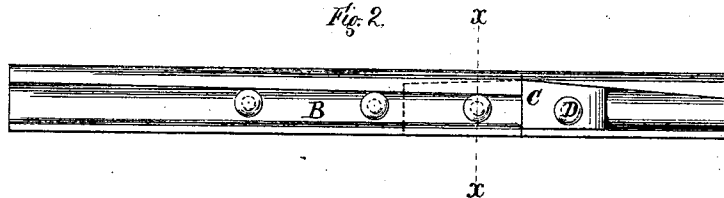
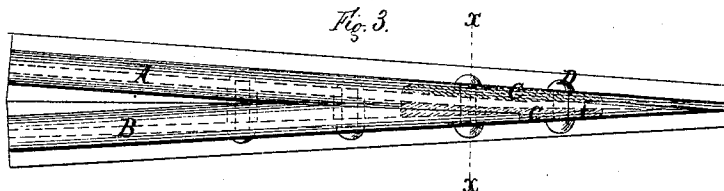


Fig. 3.



WITNESSES:

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JOSEPH WOOD, OF RED BANK, NEW JERSEY.

IMPROVEMENT IN RAILWAY-FROGS.

Specification forming part of Letters Patent No. **140,332**, dated June 24, 1873; application filed May 14, 1873.

To all whom it may concern:

Be it known that I, JOSEPH WOOD, of Red Bank, in the county of Monmouth and State of New Jersey, have invented certain new and useful Improvements in Railroad-Frogs; and I do hereby declare the following to be a full and clear description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a cross-section through the point of a railroad-frog at *xx*, Figs. 2 and 3. Fig. 2 is a side view of the point of a frog; and Fig. 3 is a top view of the same, showing the web of the rails by dotted lines, and the strengthening-plates in dotted hatched lines.

My invention consists in strengthening the point or tongue of a railroad-frog, so as to prevent fracture from the concussion and strain caused by passing wheels.

In the construction of the point of a railroad frog, where two separate rails are brought together for that purpose, it is necessary to cut away on one side of the main rail the greater portion of the crown and bottom flange, so as to admit of notching in or splicing on the other rail of the point. By so cutting away the crown and flange of this main-rail, it is materially weakened and very liable to become fractured at that part from the strain or concussion occasioned by the wheels passing through the frog.

In order to overcome this difficulty, I brace and strengthen this weak part of the main rail by placing a plate of iron or steel on each side of its web, where the flange and crown are so cut away; one of such plates being on the outside of the main rail, and the other plate extending between the webs of the two-point rails. The rails are then fastened together in the usual manner, with bolts or rivets, which will also pass through the plates,

the plate between the rails filling up the vacant space between their webs, as shown by the dotted hatched lines in Fig. 3.

In the drawing, A and B represent the two rails which form the point of the frog, A being designated as the main rail. CC are two iron or steel plates placed one on each side of the main rail A, at the point where its crown and bottom flange are cut away to make the junction with the rail B. DD are rivets, which pass through the plates CC and the web of the rail A, and hold them all firmly together. The plates CC may be of any desired length, but always long enough to admit of being riveted at points sufficiently distant on each side of the weak part of the rail A not to increase its weakness.

I am aware that plates have been used on the outside of both point rails, at their junction, to answer the purpose of fish-plates; but I use these plates on each side of the web of the main rail only, so as to supply strength to such rail where its crown and flange are cut away, and to fill up the vacant space left between the webs of the two rails, thereby presenting a solid bearing for the webs of both the rails at their junction with each other.

What I claim as new, and desire to secure by Letters Patent, is—

A railroad-frog having the main rail of the point or tongue strengthened by the use of plates of iron or steel placed on each side of it, and riveted to the web thereof at the part where its crown and flange are cut away for the purpose of splicing on the other point rail, substantially as shown and described.

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Witnesses:

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