L. H. NORTH.

RAILROAD-FROGS.

No. 194,714. Patented Aug. 28, 1877

Fig. 1

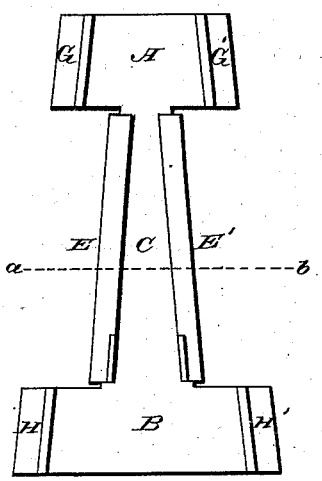


Fig. 2.

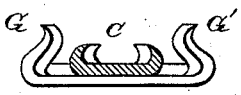


Fig. 3.

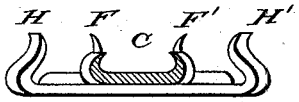


Fig. 4.

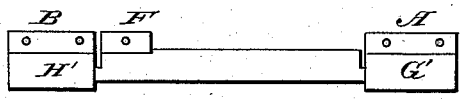
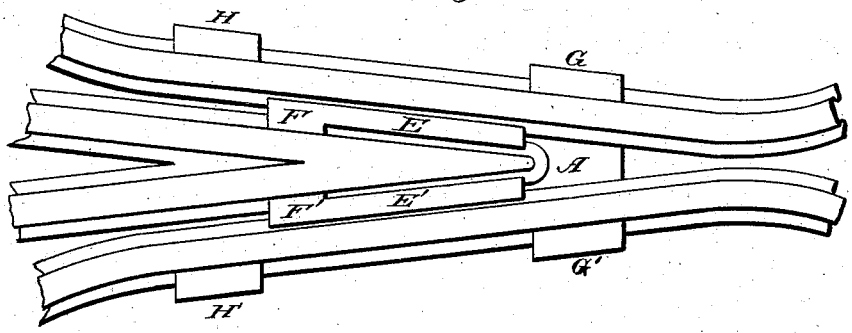


Fig. 5.



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by

UNITED STATES PATENT OFFICE.

LEONARD H. NORTH, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN RAILROAD-FROGS.

Specification forming part of Letters Patent No. **194,714**, dated August 28, 1877; application filed June 7, 1877.

To all whom it may concern:

Be it known that I, LEONARD H. NORTH, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Railroad-Frog Bed-Plates; and I do hereby declare that the following is a clear and exact description of my invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, in which—

Figure 1 is a plan or top view of the bed-plate. Fig. 2 is a section through *a b*, with the end elevation of the smaller end A. Fig. 3 is a section through *a b*, opposite to Fig. 2, with the end elevation of the larger end B. Fig. 4 is a side elevation of the bed-plate. Fig. 5 is a plan of the bed-plate together with the rails forming the frog.

My invention consists of a metallic bed-plate, composed of three pieces riveted, welded, or firmly fastened together so as to make one solid body, the main plate having, in the plan view, the shape of an I, with the base wider than the top, tapering down according to the required angle of the frog to be used. The center-part C of the main plate has both sides E and E′ risen and curved over so that a section through the center presents the shape of a C with a flat back and lying on its back, ↄ. The sides E and E′ of C taper toward each other according to the required angle of the frog. At the end nearest to B the sides E and E′ rise perpendicular above the curved part, as shown in F and F′, Fig. 3.

The ends A and B of the main plate are flat and wider than the center C—in fact, wide enough to serve as basis for the wing-rails. Their sides also taper to the angle of the frog.

Underneath the end A, and riveted, welded, or firmly fastened, is a plate wider than the end A, the sides G and G′ of which rise above the main plate in the shape shown in G and G′, Fig. 2, curving from the base almost to half a circle, then rising perpendicularly on the curved part. Underneath the end B is also a plate, riveted, welded, or firmly fastened to that end. This plate is wider than the plate end B, and the sides H and H′ rise above the main plate in the shape shown in H and H′, Fig. 3, curving from the base almost to half a circle, then rising perpendicularly above the curved part in a similar shape to the sides G and G′ of Fig. 2. The sides H and G and H′ and G′ are respectively on a line with each other, and taper toward each other at the required angle of the frog.

The center-part C of the plate is intended to receive the point or V-piece of the frog, which is slid in it from the end B. The taper of the sides E and E′ prevents the point from sliding any farther ahead than what the tapering will allow, while bolts through the lugs F and F′ and the point-rails prevent any backward motion.

The side or oscillating motion of the frog-point is also avoided by the sides E and E′, which are made to fit the point and angle of the frog.

The wing-rails of the frog both have a notch cut out of their bases. This notch is of the same length as the sides E and E′ of the center C of the main plate, and fits so as to keep the wing-rails in a tight position, respectively, between the sides H and G on the outside and E inside, and H′ and G′ outside and E′ inside. This notch prevents the wing-rails from going either forward or backward, while the sides E and H and G and E′ H′ G′ prevent any side motion.

The way to place the wing-rails is to set them so that the notches correspond to the sides E and E′, respectively; then sliding sidewise the bases of the rails in the hollow part made by the sides G and H, and G′ and H′, the rails will rest on the main plate in A and B.

For further security the wing-rails can be bolted or riveted to the perpendicular part of H G and H′ G′ and the web of the rails. This plate can be made so as to be adapted to any angle required.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The bed-plate C, having curved flanges F F′, and wings A B, in combination with the underlying flanged base-plates H H′ and G G′, substantially as and for the purpose herein shown and specified.

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Witnesses:
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O. DELCOURT.