(No Model.)

J. REED.

RAILROAD FROG.

No. 264,755. Patented Sept. 19, 1882.

Fig. 1.

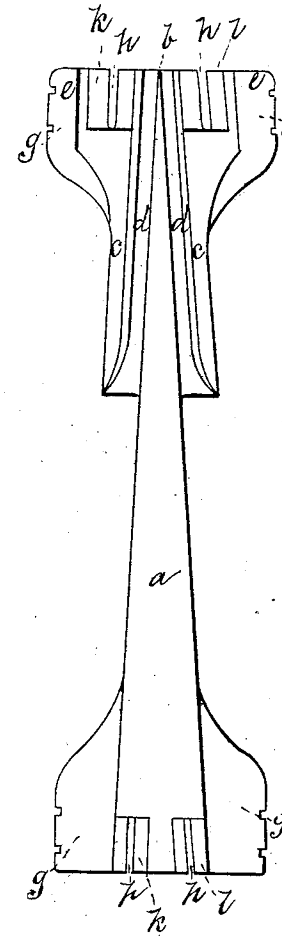


Fig. 2.

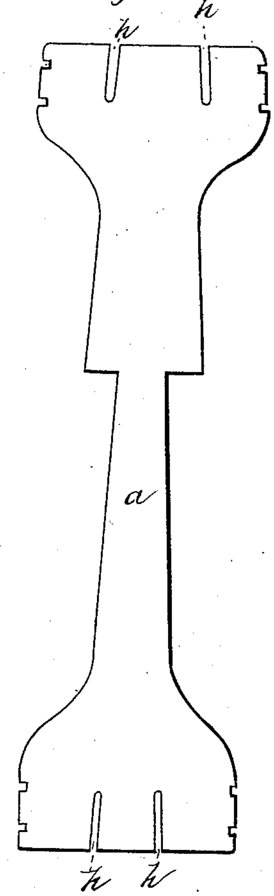


Fig. 4.

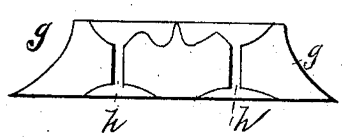


Fig. 5.

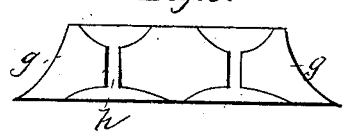
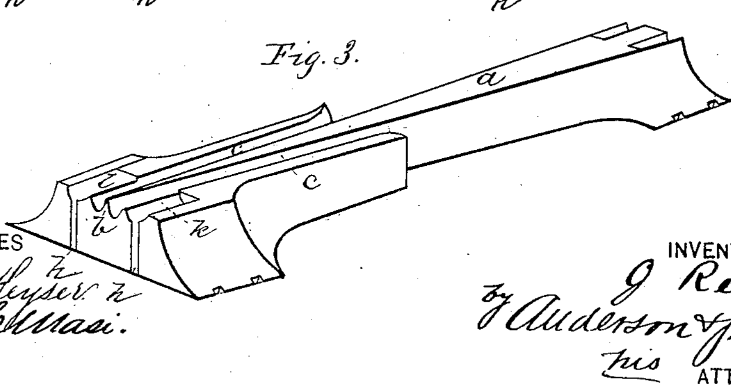


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

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RAILROAD-FROG.

SPECIFICATION forming part of Letters Patent No. 264,755, dated September 19, 1882.

Application filed July 1, 1882. (No model.)

To all whom it may concern:

Be it known that I, JAMES REED, a citizen of the United States, and a resident of Cochran, in the county of Dearborn and State of Indiana, have invented a new and valuable Improvement in Railroad-Frogs; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a plan view. Fig. 2 is a bottom plan view. Fig. 3 is a perspective. Figs. 4 and 5 are end views.

This invention has relation to frogs for railway-switches; and it consists in the construction and novel arrangement of an iron plate having a tapering center bearing extending from end to end thereof, lateral extensions on each side of the narrower end of the center bearing, provided with channels and broadening the plate, the downwardly-expanded ends forming spike-flanges, and the end slots extending in parallel direction to the sides of the center bearing and communicating with recessed seats in the upper and lower surfaces of the plate, all as hereinafter set forth.

In the accompanying drawings, the letter *a* designates the long tapering center bearing of the frog, extending from end to end of the plate. The sides of this center bearing come to a point at one end of the plate, as indicated at *b*. At the other end the center bearing is sufficiently broad to receive two rail ends in seats constructed in the end of the frog therefor. On each side of the narrow portion of the center bearing is formed a lateral extension, *c*, the groove *d* of which is adjacent to the center bearing. The end of the laterally-extended portion of the frog is expanded to form a head, *e*, and in this head, on each side of the grooves *d*, are formed the two bearings for the ends of the rails which engage this end of the frog. At each end of the frog its side walls are widened at the base to form broad bearings *g*, which are notched at their edges to receive the fastening-spikes.

The rail-bearings at the ends of the frog consist of slots *h*, which extend into the plate vertically in the manner shown in the drawings. These end slots have a direction parallel to that of the adjacent edge of the center bearing, so that at the broad end of said center bearing so that these slots converge inward, while those at the other end of the frog diverge outward from the throat of the frog. These slots receive the webs of the rails, and communicate above and below with recess-seats *k l*, in which the heads and bases of the rails are located.

This frog is formed of a single piece of iron, and it serves to hold the ends of the connected rails firmly and securely. It is strong and durable, easily secured in place to the ties, and is not liable to become disarranged or broken.

A railway frog or block of the same height and flush with the rails to be connected, formed with sockets fitting the vertical sides and adapted to receive the ends of the rails which rest on the sleepers, and having grooves or channels extending the whole length of the block and terminating in downwardly and laterally flaring openings or entrances, has already been secured to me by Letters Patent No. 254,693, and I do not seek to cover these same features herein.

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

A railway-frog having a tapering center bearing extending from end to end thereof, lateral extensions provided with channels on each side of the narrower end of said center bearing, broadening the plate in this part, the downwardly-expanded ends forming spike-flanges, and the end slots for the rail ends extending parallel to the sides of the center bearing, and communicating with recessed seats for the heads and bases of the rails formed in the upper and lower surfaces of the plate, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES REED.

Witnesses:

WILLIAM J. MCCLELLAN,

JOSEPH RUSSELL.