

(No Model.)

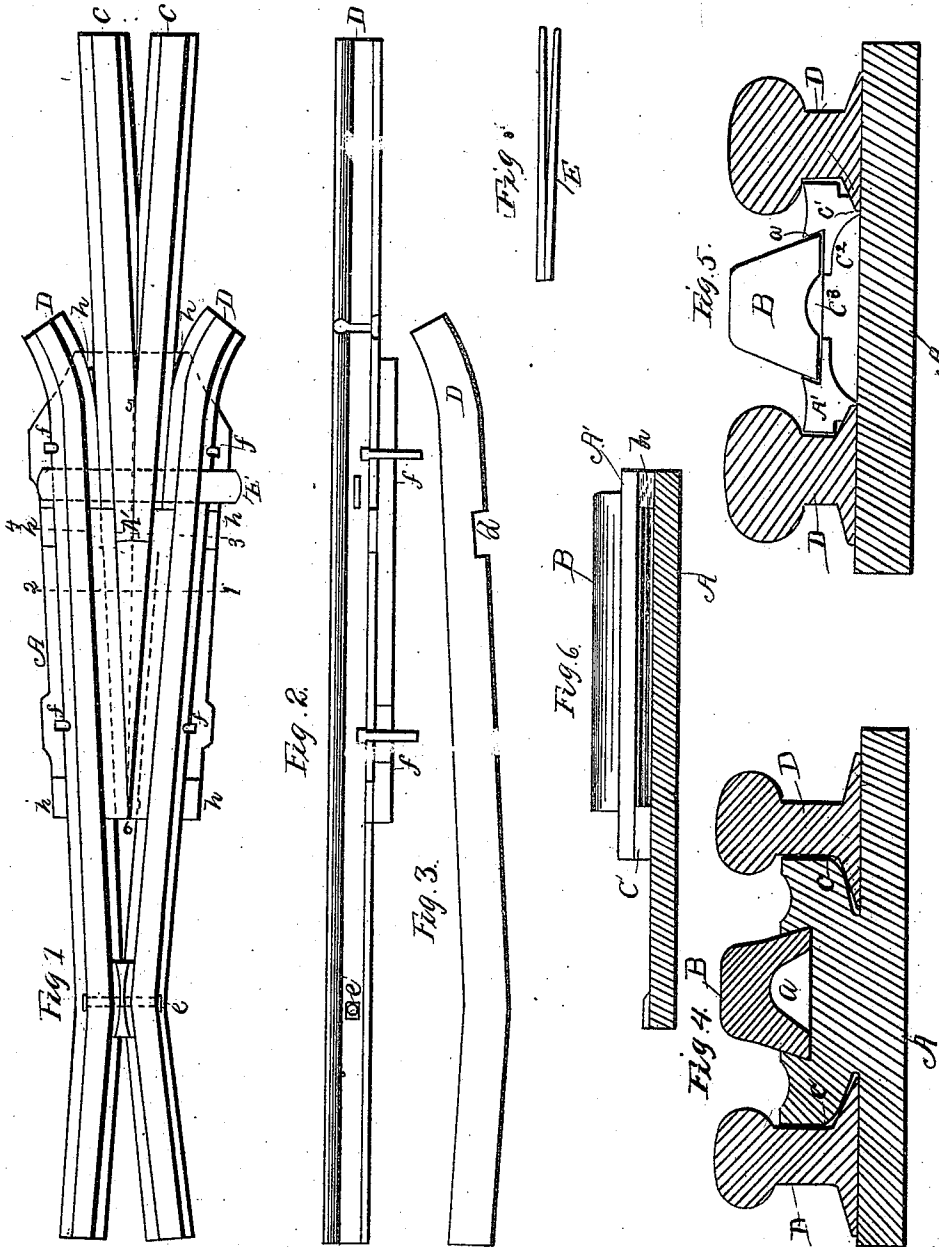
2 Sheets—Sheet 1.

A. H. GORTON, O. C. PATCHELL & W. E. GORTON.

RAILROAD FROG.

No. 287,274.

Patented Oct. 23, 1883.



WITNESSES

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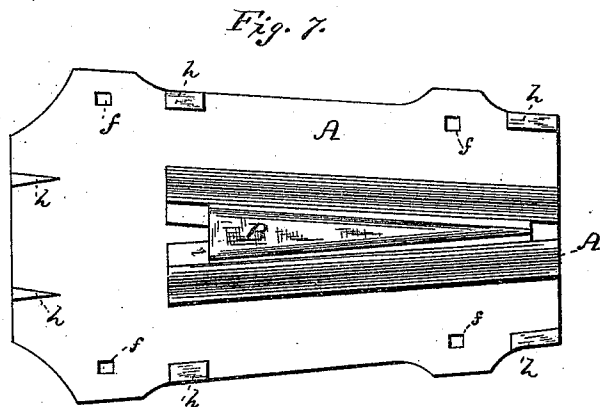
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WITNESSES

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UNITED STATES PATENT OFFICE.

ALONZO H. GORTON, OSWALD C. PATCHELL, AND WILLIAM E. GORTON,
OF CORNING, NEW YORK.

RAILROAD-FROG.

SPECIFICATION forming part of Letters Patent No. 287,274, dated October 23, 1883.

Application filed January 9, 1883. (No model.)

To all whom it may concern:

Be it known that we, A. H. GORTON, O. C. PATCHELL, and W. E. GORTON, citizens of the United States of America, residing at Corning, in the county of Steuben and State of New York, have invented certain new and useful Improvements in Railroad-Frogs, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention pertains to improvements in railroad-frogs, and has for its object simplicity of construction and facility in repairing the same, it being adapted to permit of the ready removal of a defective rail and its replacement, or the substitution of another therefor; and it consists in the detailed construction of the frog bed-plate, which is made in one piece, substantially as hereinafter more fully set forth and claimed.

In the accompanying drawings, Figure 1 is a plan view. Fig. 2 is a side view thereof. Fig. 3 is an inverted detailed view of one of the side rails. Figs. 4 and 5 are enlarged sectional views taken on the lines 1 2 and 3 4, respectively, of Fig. 1. Fig. 6 is a longitudinal sectional view, taken on the dotted line 5 6. Fig. 7 is a plan view of the bed-plate, and Fig. 8 is a detail view.

In carrying out our invention we construct or cast the frog bed-plate A, with its adjunctive parts, in one piece, said parts consisting of the approximately V-shaped elevation A' and the cleats or lugs h h. The elevation A' has a correspondingly-shaped socket, a, with downwardly-flared walls, giving it in cross-section a dovetailed shape. Within this socket is inserted and removably held the point B, its sides being correspondingly flared in cross-section, and tapered, as usual, in the direction of its length, to effect the securing of the same therein without the use of the keys, &c.

In the outer sides of the elevation A', next to the bed or base A, are recesses c c, into which are received the flanges of the inner sides of wing-rails D D, the outer sides of said rails being held by the cleats or lugs h and keys f.

At the sides of the flared or enlarged portions of the elevation A' are formed studs or projections c', which enter the notches or recesses d of the wing-rails D, to facilitate securing the latter accurately in position with relation to the frog-point. At the same end the

elevation A' is provided with a dovetailed or flared socket, c², and a slot, c³, arranged above this socket, into which is inserted and removably held the convergent ends of the track-rails C, said rails being deprived on one side, at their convergent ends, of their flanges, and adapted to abut against and join the flared end of the frog B, the rails being guided to their position by cleats or lugs h on the base or bed A. The track-rails C and the side rails, D, are keyed together, as shown at E, said key being slitted, and slightly sprung apart at one end and passed through coincident apertures g in the webs of the rails, while the wing-rails are secured together at their points of nearest convergence by the screw-bolt e, passed through the same and a block, F, interposed between the rails.

From the foregoing it is apparent that a defective section of rail can be readily removed, to permit the defect to be remedied, and returned, or its place can be supplied by a new or another rail, while the point can also be readily removed and renewed when necessary.

We are aware that it is not broadly new to construct a frog with "a raised central part having a dovetail cavity," the same being shown in the patent granted E. J. Conner, April 27, 1858, No. 20,040, its general structure and arrangement of parts not otherwise resembling our railroad-frog.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is—

In a railroad-frog, the bed or base having an approximately V-shaped elevation provided with a correspondingly-shaped socket in cross-section of a dovetail shape, said elevation having recesses in its outside and lugs or projections at its enlarged end, and the base or bed having similar lugs or projections arranged with relation to the said elevation, in combination with the notched or recessed side rails, substantially as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

ALONZO H. GORTON.
OSWALD C. PATCHELL.
WILLIAM E. GORTON.

Witnesses:

LOUIS P. MILLER,
L. B. ROBINSON.