

G. THOMAS & W. MILLER.
Railway-Frogs.

No. 148,264.

Patented March 3, 1874.

Fig: 1

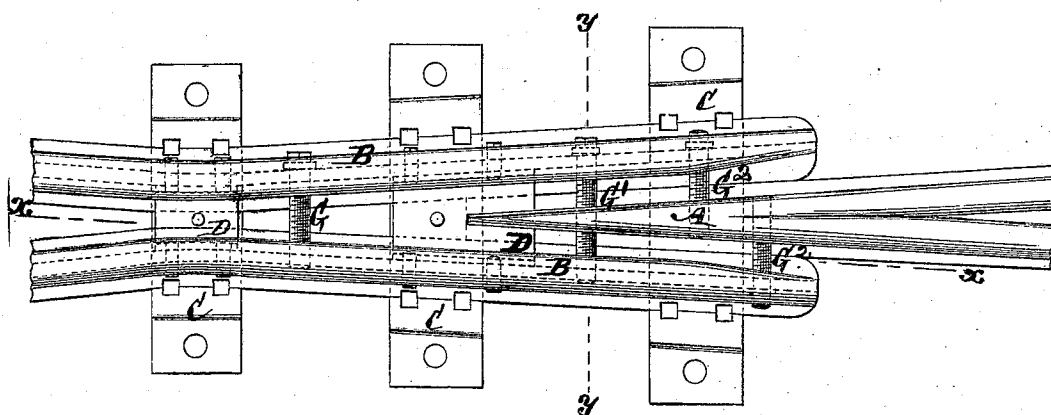


Fig: 2

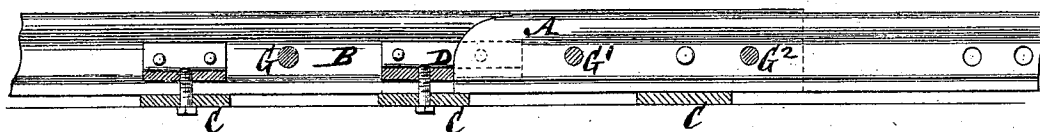
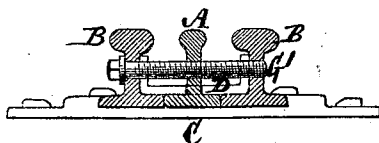


Fig: 3



Witnesses:

Michael Ryan
Fred Haynes

George Thomas
William Miller
by their Attorneys
Brown & Allen

UNITED STATES PATENT OFFICE.

GEORGE THOMAS, OF JERSEY CITY, NEW JERSEY, AND WILLIAM MILLER,
OF BROOKLYN, NEW YORK.

IMPROVEMENT IN RAILWAY-FROGS.

Specification forming part of Letters Patent No. **148,264**, dated March 3, 1874; application filed
December 27, 1873.

To all whom it may concern:

Be it known that we, GEORGE THOMAS, of Jersey City, in the county of Hudson and State of New Jersey, and WILLIAM MILLER, of Brooklyn, in the county of Kings and State of New York, have jointly invented an Improvement in Railway-Frogs, of which the following is a specification:

The invention consists in a certain arrangement of stay-bolts on opposite sides of the frog, out of line with each other, whereby the adjustment of the point is more readily effected.

In the accompanying drawing, which forms part of this specification, Figure 1 represents a plan of our improved frog; Fig. 2, a longitudinal vertical section thereof on the line *x x*, and Fig. 3 a transverse section on the line *y y*.

Similar letters of reference indicate corresponding parts.

A is the point or split ends of the pointed rails, and B B the wings or wing-rails of the frog. C C are the chairs on which the wings B and point A rest, the nose or forward end of the point being riveted to one of the chairs, or resting on or entering a brace-plate, D, riveted to the chair. There may be any number of these braces or brace-plates, which are arranged between the wing-rails B B, and are bolted, at their turned-up edges, to the sides of said rails, which they serve to stiffen and keep at their proper distances apart. Transversely-arranged adjustable stays or screw-bolts G G¹ G² also serve to stiffen and hold the wings and point in position, the bolt G (or there may be any number of such) passing through and screwing into the wing-rails in

advance of the point, and the other bolts or stays, G¹ G², screwing through either one wing-rail, and into the point from opposite sides, and out of line with each other, as shown for the stay-bolts G². These screw-stays not only serve to stiffen the frog, but to provide for adjustment of the point and wing-rails in case of springing, and the whole makes both a light and strong frog, dispensing with the usual base-plate, and admitting of the separate removal, for replacement or repair, of the point or either of the wing-rails.

It will be observed that the several stay-bolts G G¹ G² are arranged outside of or between the braces D, which provides for a certain independent adjustment of the wing-rails B and point A to conform to the meeting rails of the main track; also, by the disposition of the stay-bolts G² on opposite sides of the frog, through either wing-rail, and out of line with each other, provides in a most effectual manner for the springing or adjustment of the split portion of the point A to either side, and independently of the wing-rails B, to meet necessary adjustments.

We claim—

The combination, with the point A or split portion thereof, and the opposite wing-rails B B, of the stay-bolts G² G², arranged out of line with each other, in transverse relation to the frog, essentially as and for the purposes herein set forth.

GEORGE THOMAS.
WILLIAM MILLER.

Witnesses:

MICHAEL RYAN,
FRED. HAYNES.