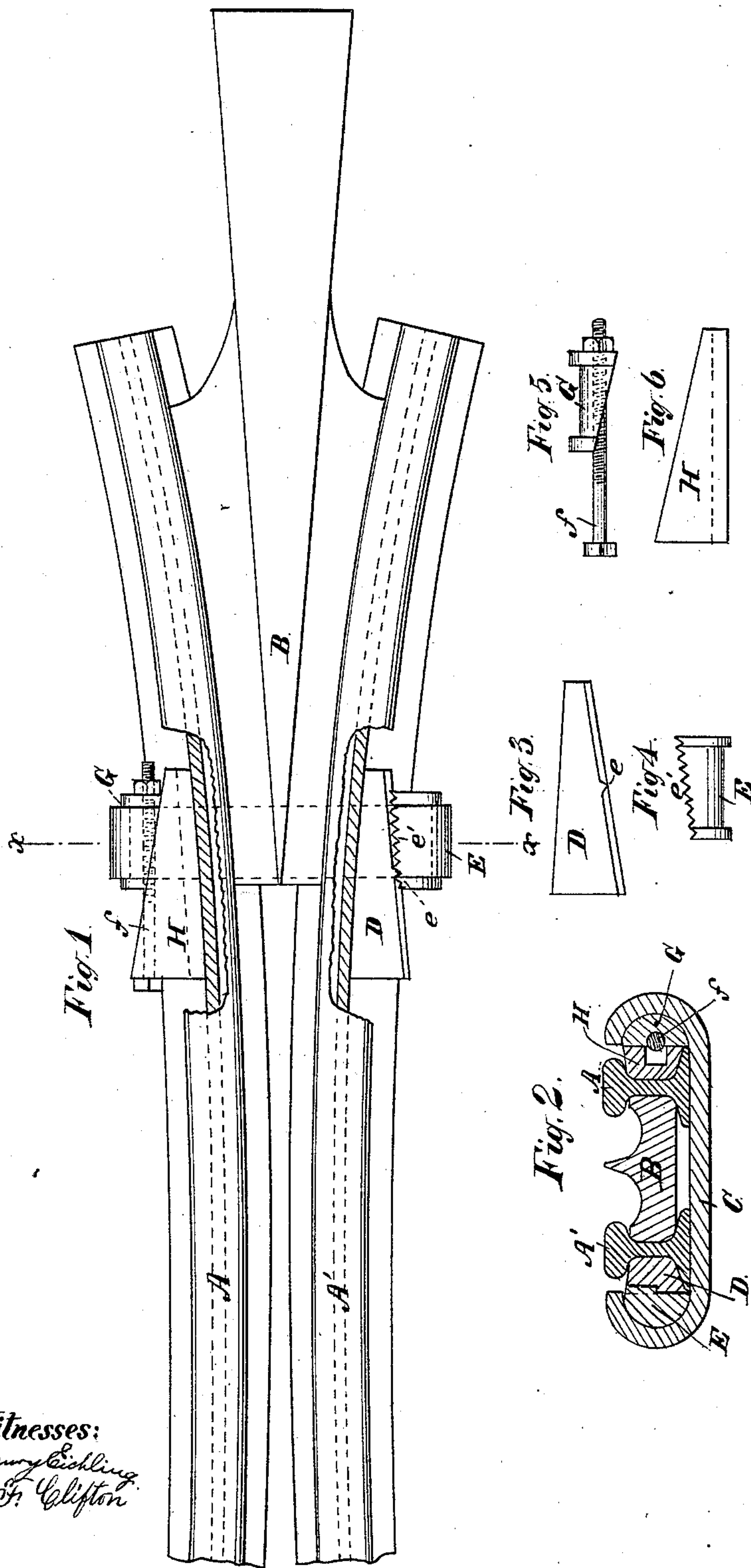


(No Model.)

J. BRAHN.
Railway Frogs.

No. 232,172.

Patented Sept. 14, 1880.



Witnesses:
Henry Eichling
M. F. Clifton

Inventor:
James Brahn
By L. Sitch atty.

UNITED STATES PATENT OFFICE.

JAMES BRAHN, OF JERSEY CITY, NEW JERSEY.

RAILWAY-FROG.

SPECIFICATION forming part of Letters Patent No. 232,172, dated September 14, 1880.

Application filed March 15, 1880. (No model.)

To all whom it may concern:

Be it known that I, JAMES BRAHN, of Jersey City, State of New Jersey, have invented a new and useful Improvement in Railway-Frogs, of which the following is a specification, reference being had to the accompanying drawings, forming part of the same, in which—

Figure 1 is a top face view of a railway-frog containing my invention. Fig. 2 is a cross-section of the same on line *x x*, Fig. 1; and Figs. 3, 4, 5, and 6 are detail views of detached parts.

My invention relates to railway-frogs that are made of separate rails secured together; and it consists of the devices hereinafter described and claimed, by which such securing together of said rails is effected.

A A' are the wing-rails, and B the point of the frog. C is a bar which passes under the rails and point, and is curved over upon itself at each end, forming what is called a "clip," the same being shown plainly in Fig. 2.

D is a wedge-shaped block, the face of one side being fitted to the rail A, and the opposite side having formed on it a projection or tooth, *e*. E is a correspondingly wedge-shaped block, one side of which is rounded to fit into the curved end of C, the opposite inclined face being provided with notches *e'*, as shown in Fig. 4. The outer rounded face of this block is recessed, as seen in Fig. 4, leaving flanges at the ends. The curved end of the clip fits into the recess between the flanges, thus preventing its endwise movement. These blocks are placed, with their inclined faces, heads, and points together, between the curved end of C and the side rail, A', thus forming a double edge, the tooth *e* engaging one of the notches

in E, thus preventing the endwise movement of D. Preferably they are rabbeted on their inner contiguous faces, as seen in Fig. 2.

On the opposite side of the frog, and at the opposite end of the clip, are correspondingly wedge-shaped blocks G H, each being recessed in their inclined contiguous faces to permit the insertion of a bolt, *f*, which passes longitudinally through them, the head of the bolt taking against the end of H and the nut against the opposite end of G. By screwing up the nut, H will be forced along to act as a wedge to draw and hold the rails together. If, after exhausting the screw on the bolt, the rails should still be loose, the bolt can be slackened and the wedge D be set farther along on E. By means of these double wedges a considerable tightening movement is obtained, while the incline of the wedges is so small that they will have great tightening power and but little tendency to a reverse movement.

The use of these double wedges on both sides of the frog is the preferable arrangement; but a single block in place of E and D may be used. As many of the clips and wedges may be used at different points in the frog as may be desired.

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

The combination, in a railway-frog, of the clip C, rails A A', point B, and wedges E D, provided with the tooth *e* and notches *e'*, and wedges G H, and the screw-bolt *f*, all as and for the purpose described.

JAMES BRAHN.

Witnesses:

M. F. CLIFTON,
A. S. FITCH.