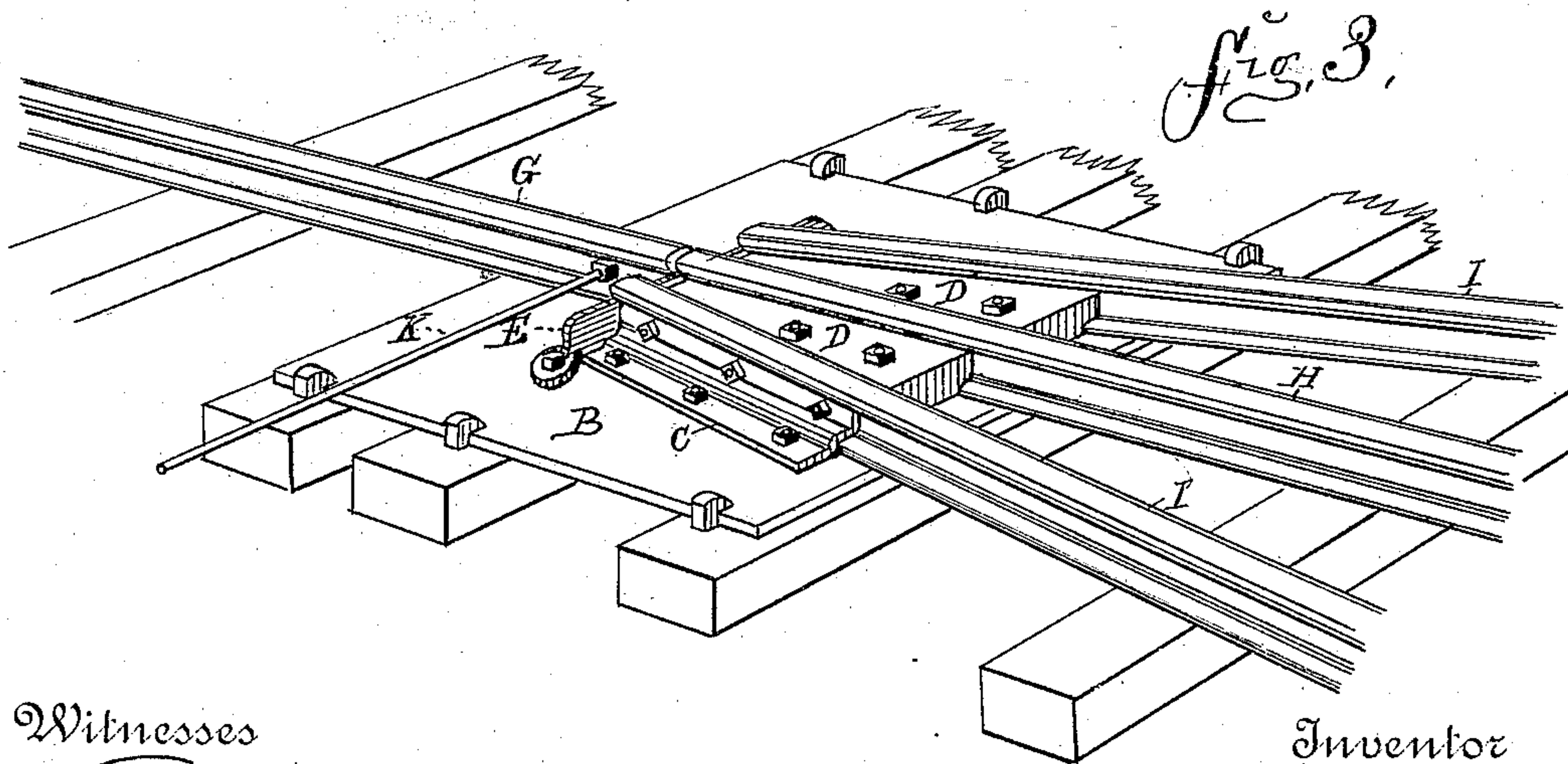
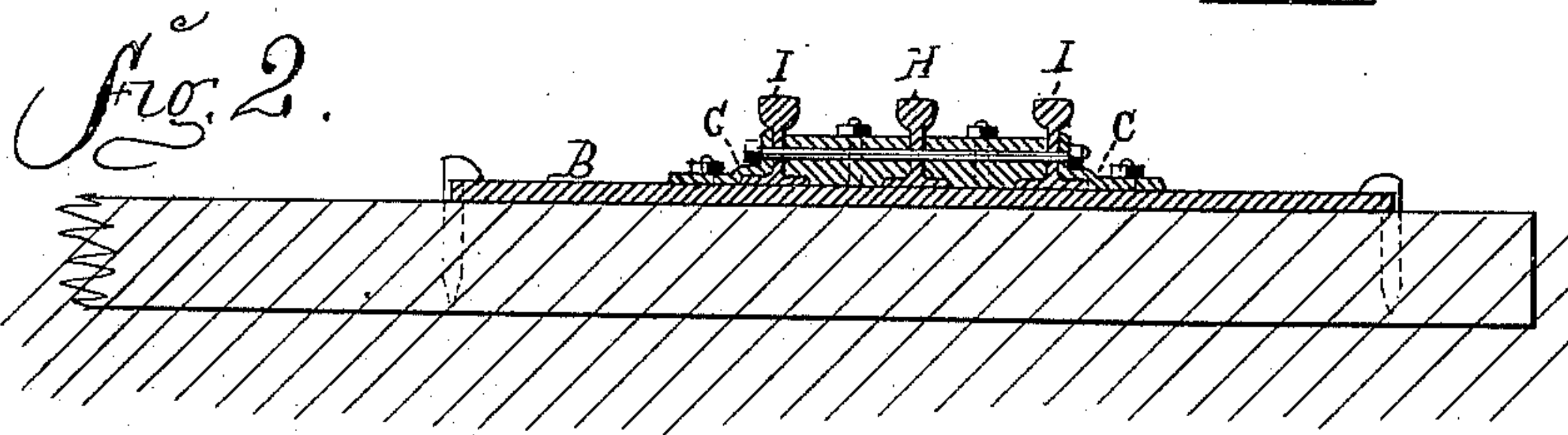
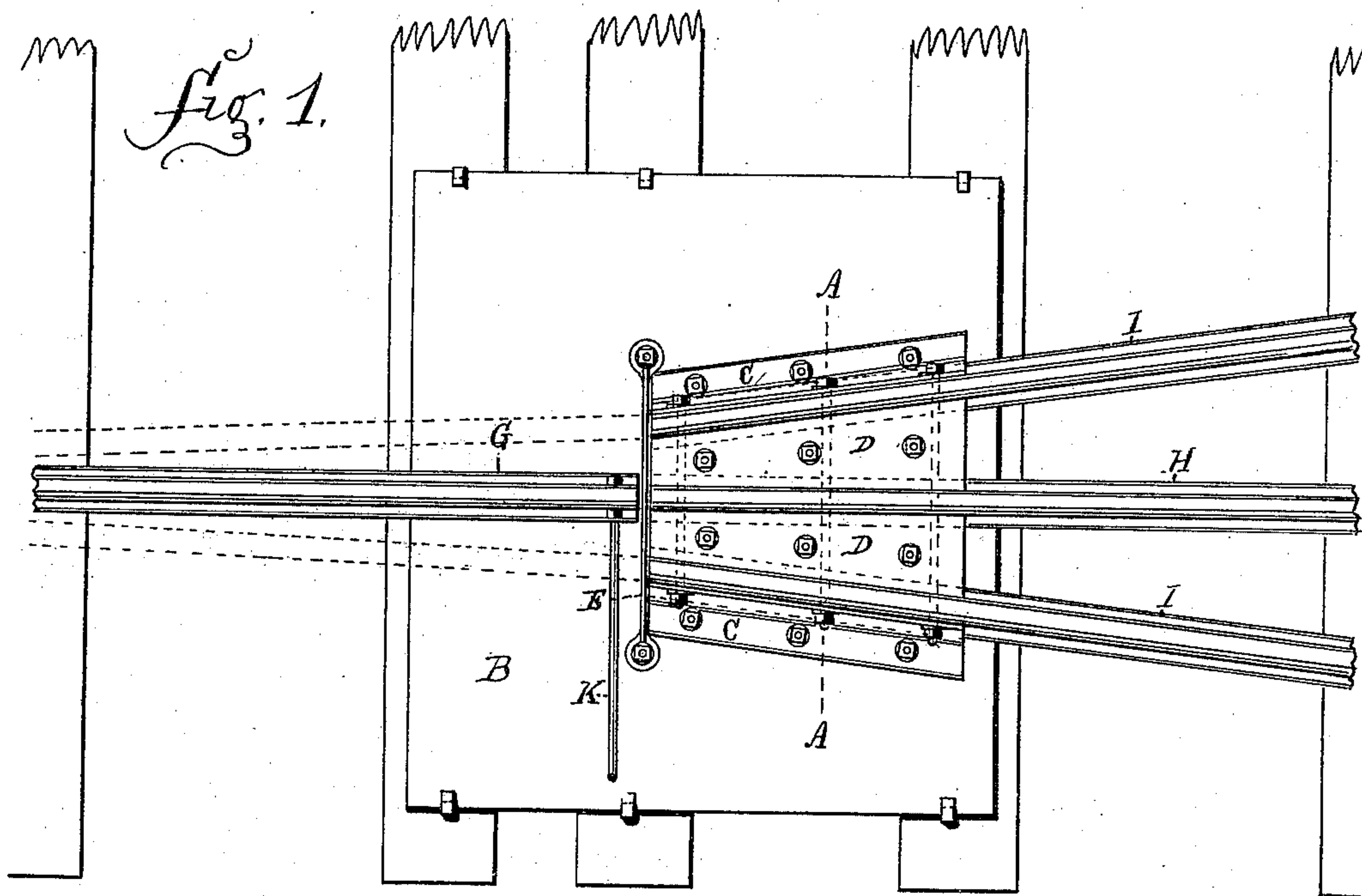


(No Model.)

H. B. DYE.  
RAILROAD SWITCH CHAIR.

No. 343,951.

Patented June 15, 1886.



Witnesses

*W. Taylor*  
*Ralph Sherman*

Inventor

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By

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*P. E. Dye*



# UNITED STATES PATENT OFFICE.

HENRY BAXTER DYE, OF MARQUETTE, MICHIGAN, ASSIGNOR OF ONE-HALF  
TO P. EDWIN DYE, OF WASHINGTON, DISTRICT OF COLUMBIA.

## RAILROAD SWITCH-CHAIR.

SPECIFICATION forming part of Letters Patent No. 343,951, dated June 15, 1886.

Application filed August 29, 1885. Serial No. 175,679. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY BAXTER DYE, a citizen of the United States, residing at Marquette, in the county of Marquette and State of Michigan, have invented certain new and useful Improvements in Railway Switch-Chairs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to railway switch-chairs, although I do not limit myself in its use, strictly, to a switch-chair only; and it consists in certain new and useful improvements, having for their object greater simplicity of construction and increased safety and efficiency in its operation, these objects being attained by the improved construction and arrangement of the several parts, which will be hereinafter more fully described, and pointed out in the claims.

My improved chair is also applicable as an intermediate crossing, joint, or check-rail chair.

With my improved switch-chair all the ends of the rails of the main line in direction of the siding and opposite the rails coming off from the main line onto the siding are securely and rigidly bolted together in such a manner that they cannot creep, so as to crowd the switch-rail and prevent its free working at all times, both in the expanding heat of summer and the snow and ice of winter. The movable end of the rails from the main line have a good hold, and rest firmly upon the bed-plates of the chairs, while between the ends of the opposing rails and the angle-irons and the switch-rails I interpose a chafing-plate, to prevent any possibility of the ends of the switch-rails becoming caught in opening or closing the switch.

The chair is composed of several parts in combination, and for a double throw I make the bed-plate of cast-iron, twenty-one by thirty inches, and three-fourths inch thick, while for a single throw eighteen by thirty inches, three-fourths inch thick, although I do not strictly limit myself to these dimensions. To this bed-plate are securely riveted and fastened cast angle-plates of the angle required

at the siding, having a beveled edge or chamfer on the under side along the long edges, so as to form a recess for the reception of the foot or flange of the rails. The edge of the angle-plates are formed to fit into the recess in the side of the rails as well as over the flange of the rails, and when a double throw is required two of these cast angle-plates are securely riveted and fastened side by side in the proper position on the bed-plate, forming a recess between for the reception of the rail of the main line, while their opposite sides or edges form a half-recess for the rails from the siding. The remaining half of these recesses for the rails from the siding are formed by wrought-iron plates shaped and fashioned so as to fit into the recesses on the sides of the rails, and up, over, and upon the flange of the foot of the rails, being securely riveted and fastened to the bed-plate.

The cast angle-plates and the wrought-iron plates are each provided with bolt-holes, to allow of the passage of bolts from side to side through the rails, thus securing the ends of the rails in a most substantial manner. With a single throw—that is, when but a single change can be made by the same switch—only a single cast angle-plate is required, but the balance of the construction is the same as already described. The rivets are all countersunk, so that the heads are plain upon both sides.

The chair is easily put in position, the ends of the rails slide into the recesses provided, and when all are secured by the bolts passing through the angle-irons and the ends of the rails, the cross-ties under the chair can be brought up to the required level and the bed-plate of the chair securely spiked and fastened thereto.

Reference being had to the accompanying drawings, which form a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures, I will proceed to point out with greater particularity my invention, in which—

Figure 1 is a top view or plan of the same; Fig. 2, a sectional view at the point A A, Fig. 1. Fig. 3 is a perspective of the same.

B is the bed-plate; C C, wrought angle-irons; D D, cast angle-plates; E, chafing-plate riv-



eted to the bed-plate; G, movable rail on main line; H, rail of main line; I I, rails of the sidings; K, connection of switch-rail from main line with switch-stand.

5 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, in a switch-chair for securing railway-rails, of a bed-plate, B, securely resting upon and spiked and fastened to two or more wooden ties, the cast-iron angle-plates D D, securely riveted to the bed-plate, their wedge edges adapted to fit into the recess in the side of and over the foot or flange of the rails, and having horizontal bolt-holes passing through from side to side, corresponding to like holes in the ends of the rails, the wrought angle-irons C C, also firmly riveted to the bed-plate and adapted to fit over and upon the foot or flange and into the recess in the side of the rails, and also having corresponding bolt-holes through which bolts are made to pass, by means of which the cast angle-plates, the wrought angle-irons, and the ends of the rails are securely and firmly fastened and held together, and the chafing-plate E E, securely fastened to the bed-plate, and passing between the ends of the rails, all substantially as shown and described.

2. The combination, in a switch-chair for securing the ends of railway-rails, of the bed-plate B, resting upon and securely fastened to two or more wooden ties or ties of other suitable material, the cast angle-plates D D, riveted and securely fastened to the bed-plate, having bolt-holes passing through their edges from side to side parallel with the bed-plate, the wrought angle-irons C C, also riveted and securely fastened to the bed-plate, their opposite ends being provided with registering bolt-holes adapted to pass bolts through the corresponding bolt-holes in the cast angle-plates, and the chafing-plate E E, placed at the narrow end of the angle-plates, so as to pass between the ends of the rails of the main line and the corresponding rails of the siding and securely riveted to the bed-plate, the space inclosed be-

tween the bed-plate, the edges of the cast angle-plates, the wrought angle-irons, and the chafing-plate forming recesses adapted to receive and fit the ends of the rails to be slipped therein from the direction of the siding and toward the main line, the ends of the rails being also provided with bolt-holes corresponding to those in the wrought angle-irons and the cast angle-plates, through which bolts may be passed having suitable nuts, by means of which the rails are securely fastened and held in place, all substantially as shown and described.

3. The combination, in a switch-chair for securing railway-rails, of the cast bed-plate B, of suitable dimensions, resting upon and securely fastened to two or more wooden ties, the cast angle-plates D D, made at any required angle, riveted and securely fastened to the bed-plate, their long edges being shaped and fashioned so as to fit into the sides and over the foot or flange of the rails, and having bolt-holes passing through their edges from side to side parallel with the bed-plate, corresponding to like holes in the ends of the rails adapted to passing bolts. the wrought angle-plates C C, shaped and fashioned so as to fit into the sides and over the foot or flange of the rails, one side being securely riveted and fastened to the bed-plate, the other side being provided with bolt-holes corresponding to those through the rails and the cast angle-plates, adapted to pass bolts of suitable dimensions provided with proper nuts through wrought angle-irons, the rails, and the cast angle-plates, by means of which said parts are securely held and fastened together, and the chafing-plate E E, passing between the ends of the rails H H, G G, and I I, its ends securely riveted and fastened to the bed-plate, all substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY BAXTER DYE.

Witnesses:

GAD SMITH,  
ALLAH L. CLARK.