

(No Model.)

2 Sheets—Sheet 1.

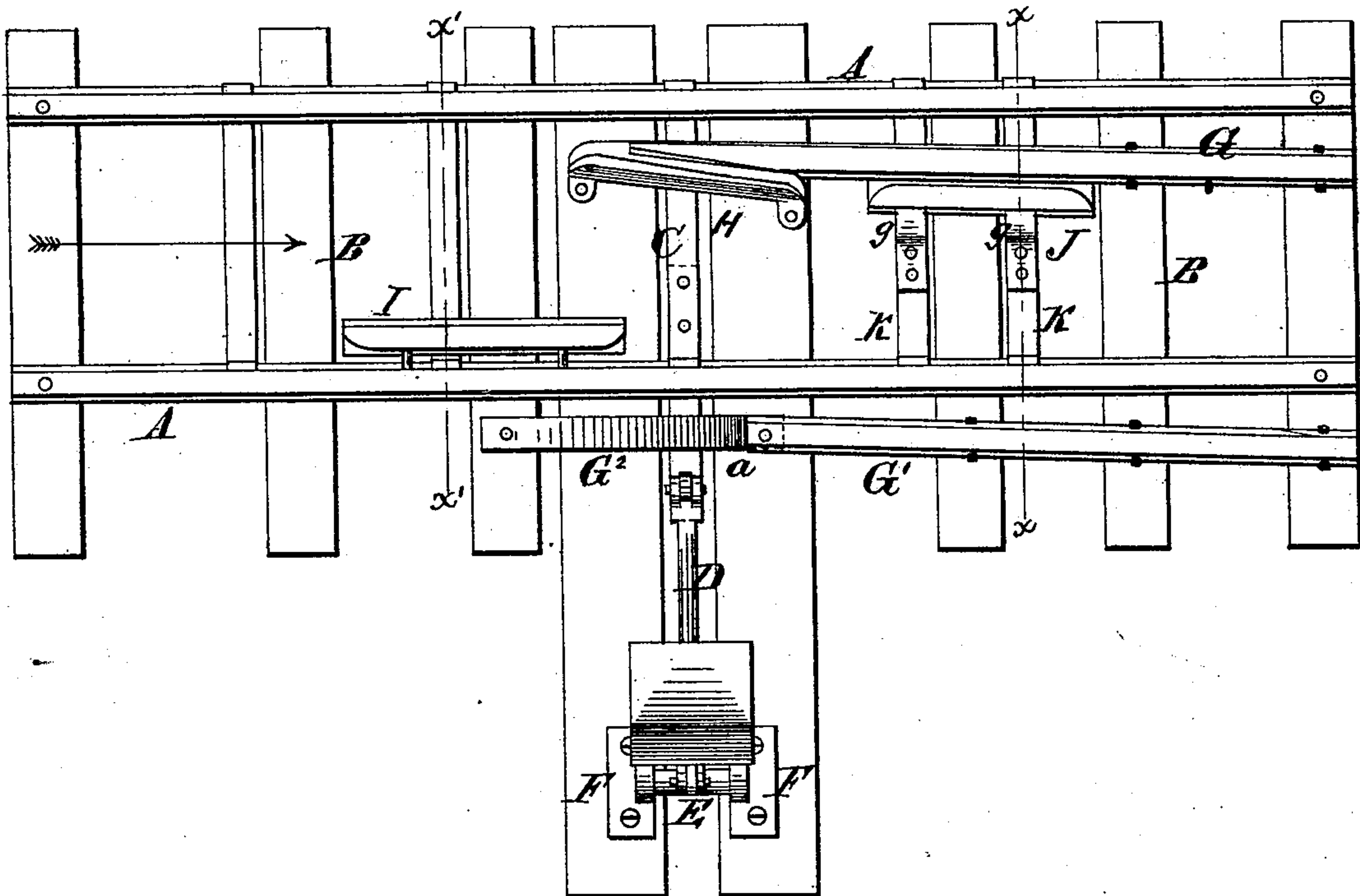
J. GRAY & W. HOLLENBACK.

RAILROAD SWITCH.

No. 275,038.

Patented Apr. 3, 1883.

Fig. 1.



Witnesses:
J. M. Burnham.
W. R. Keyworth,

Inventors:
Josiah Gray and Westley Hollenback
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(No Model.)

2 Sheets—Sheet 2.

J. GRAY & W. HOLLENBACK.

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Fig. 2.

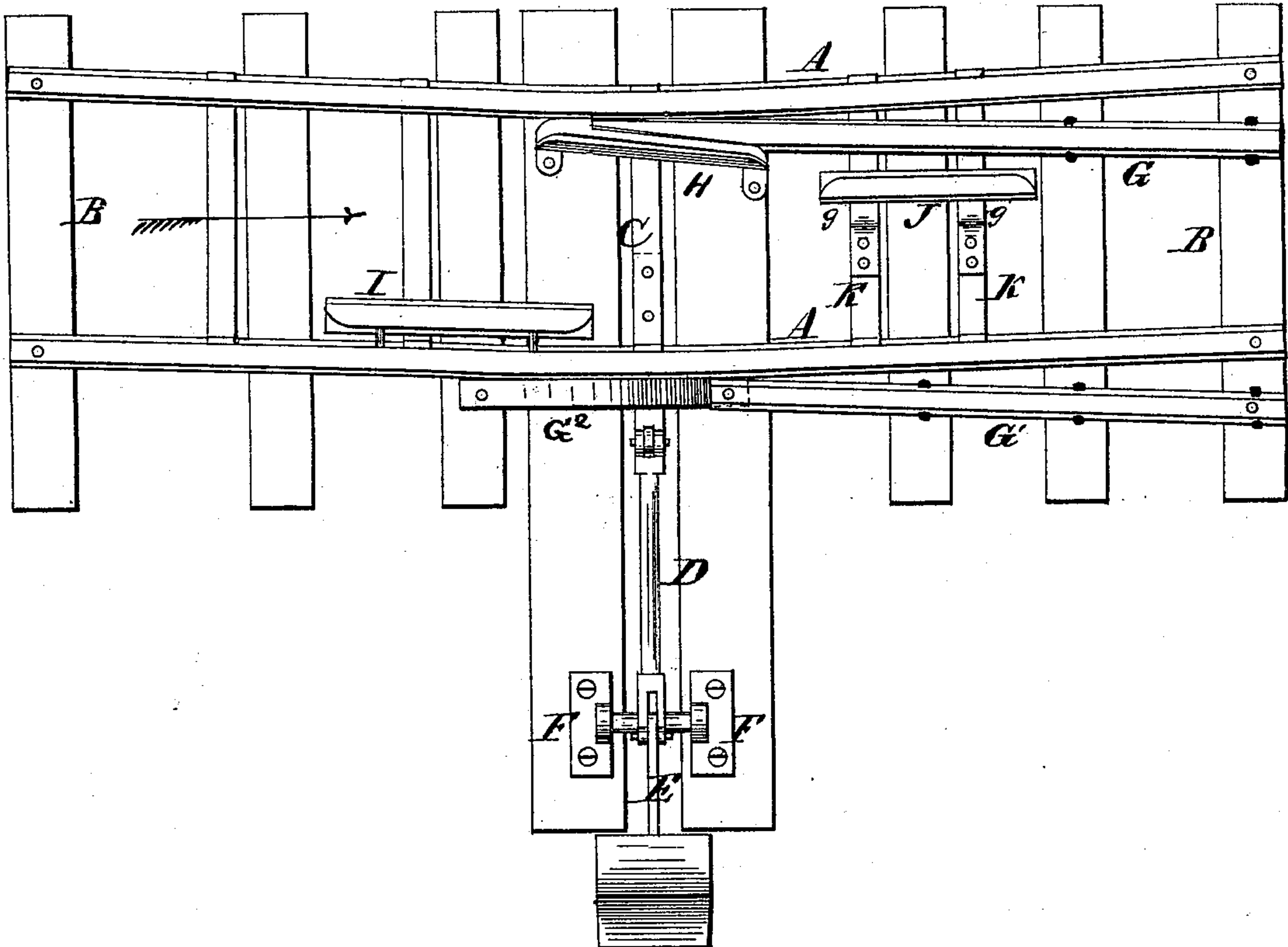


Fig. 3.

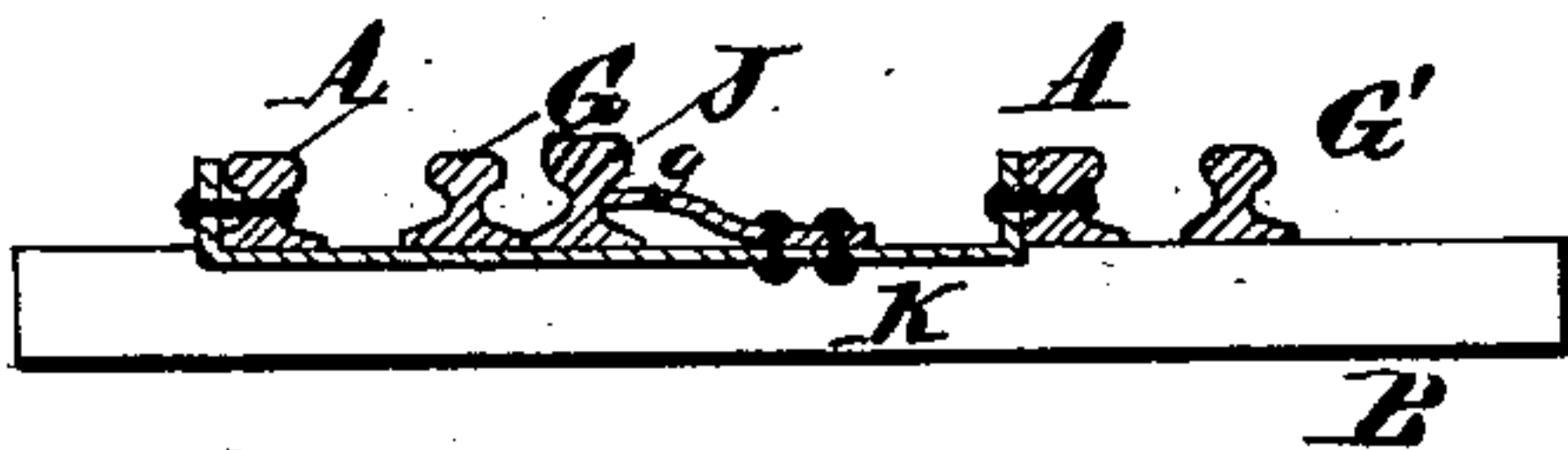
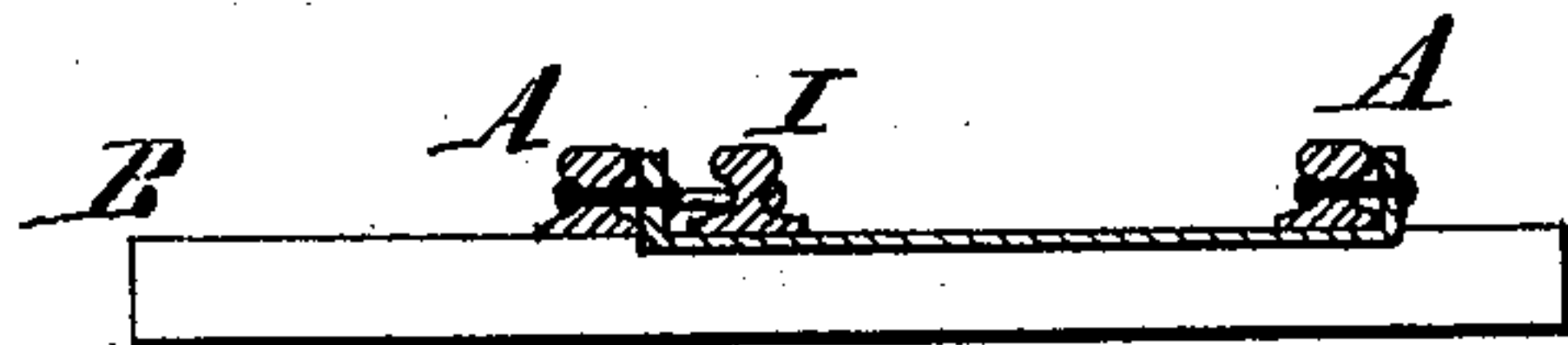


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOSIAH GRAY AND WESLEY HOLLENBACK, OF CHICAGO, ILLINOIS, ASSIGN-
ORS TO THEMSELVES, CONNELL B. SHEFLER, AND JACOB R. REED, ALL
OF SAME PLACE.

RAILROAD-SWITCH.

SPECIFICATION forming part of Letters Patent No. 275,038, dated April 3, 1883.

Application filed August 4, 1882. (No model.)

To all whom it may concern:

Be it known that we, JOSIAH GRAY and WESLEY HOLLENBACK, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Railroad-Switches; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a plan view of main-track and siding rails, showing our improvements applied at the switch, a ball or loaded lever being shown and the switch set for the main track. Fig. 2 is a similar view, showing the switch adjusted for the siding. Fig. 3 is a cross-section through Fig. 1, taken in the vertical plane indicated by the dotted line $x x$, Fig. 1. Fig. 4 is a cross-section through Fig. 1, taken in the vertical plane indicated by the dotted line $x x$, Fig. 1.

This invention has for its object to improve the railroad-switch for which Letters Patent were granted to us bearing date April 18, 1882, and numbered 256,798; and the nature of our invention and improvement consists in the combination of a double-beveled block or guard with the spring movable main rails, and with other parts, which will be hereinafter explained.

A A designate the two main-track rail-sections, which are so spiked down to the cross-ties B that they are allowed to spring laterally in one direction from straight lines. These rail-sections are connected together in line with a ball-lever switch-shifter by means of a tie or bridle, C, one end of which is connected by a joint to a pitman-rod, D, which is connected by its extreme outer end to a loaded or ball lever, E, the fulcrum of which is in blocks F, rigidly secured upon cross-ties extended out beyond the track. This ball-lever and the spring main-track rails have been fully described by us in a patent previously granted the 4th day of July, 1882, No. 260,674, and are not herein claimed.

G designates a siding-rail, which is rigidly spiked down upon the cross-ties. This rail-section terminates in a long beveled point, and

it is arranged near the left-hand main-track rail, the left and right being considered with reference to the direction of the arrow marked on Figs. 1 and 2, and a train passing the switch in this direction. The siding-rail G', which is arranged parallel to the rail G, terminates at one end in an inclined flat top section, G², which at the point a is the depth of the wheel-flanges higher than the plane of the track, taken horizontally. When the switch is adjusted, as shown in Fig. 2, and a train is passing in the direction of the arrow, the right-hand wheels will ride from the corresponding main-line rail to the siding-rail G' over the block, which elevates said wheels so their flanges will clear the main-line rail in crossing it. Opposite the inclined section G², and in close relation to the pointed end of the rail-section G, is a block or guard, H, which is constructed and arranged substantially as described in our Letters Patent No. 256,798, of 1882, above referred to.

I designates a guard or guide block beveled at both ends and secured to the inner side of the right-hand main-track rail, so as to leave a space between it and this rail for receiving the flanges of the wheels. On the opposite side of the switch tie or bridle C to the guard or guide block I, and ahead of the guard H, is our improved movable guard-rail J, which lies alongside of the siding-rail section G, a short distance from the guard-block H. This guard-rail section J is beveled at both ends, and its top surface is in a plane above the horizontal plane of the main-track rails and the siding-rail G. This section J is rigidly secured to ties K K of the main-track rails by means of offsets $g g$. The section J is movable with the laterally-springing portions of the main-track rails A A, and serves, when it is struck by the flanges of car-wheels, to shift said rails.

By our invention it will be seen that a locomotive or car can pass freely from the siding onto the main track, in the event the switch should not be set therefor, without liability of being derailed. It will also be seen that we have a direct motion laterally of the switch, obtained by the employment of the movable guard-rail in combination with and secured to the spring main-track rails.

Having described our invention, we claim—

1. In combination with the spring main-track rails, actuated by means substantially as described, the siding or turnout rails $G\ G'\ G^2$, the guard-rail section J, secured to the main-track rails by means of ties, and the guard H, all substantially in the manner and for the purposes described.

2. The combination of the laterally-movable spring main-track rails, means for moving the same by hand, the siding-rails $G\ G'\ G^2$, the movable guard-section J, stationary guard-section H, and the movable guard or guide block I, all constructed and arranged to operate substantially in the manner and for the purposes described.

tion H, and the movable guard or guide block I, all constructed and arranged to operate substantially in the manner and for the purposes described.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

JOSIAH GRAY.

WESLEY HOLLENBACK.

Witnesses:

F. J. LOESCH,

ROBT. EASTY.