

(No Model.)

J. B. SUFFERN.

RAILWAY SWITCH.

No. 338,649.

Patented Mar. 23, 1886.

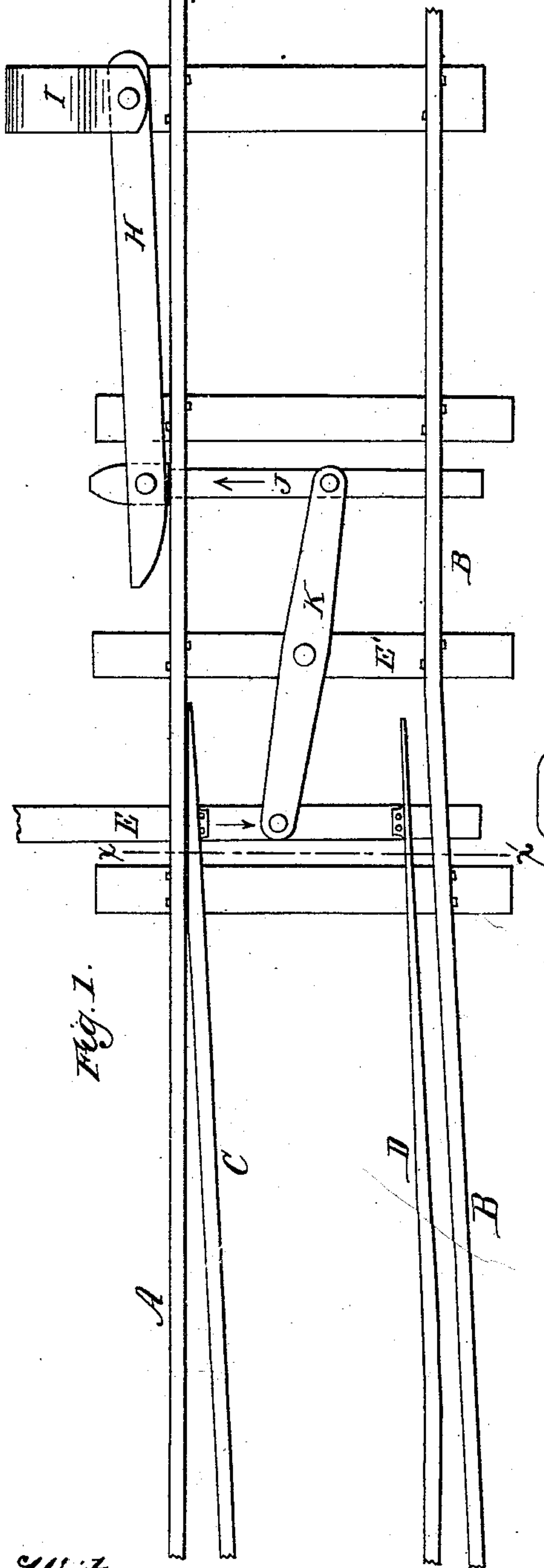


Fig. 1.

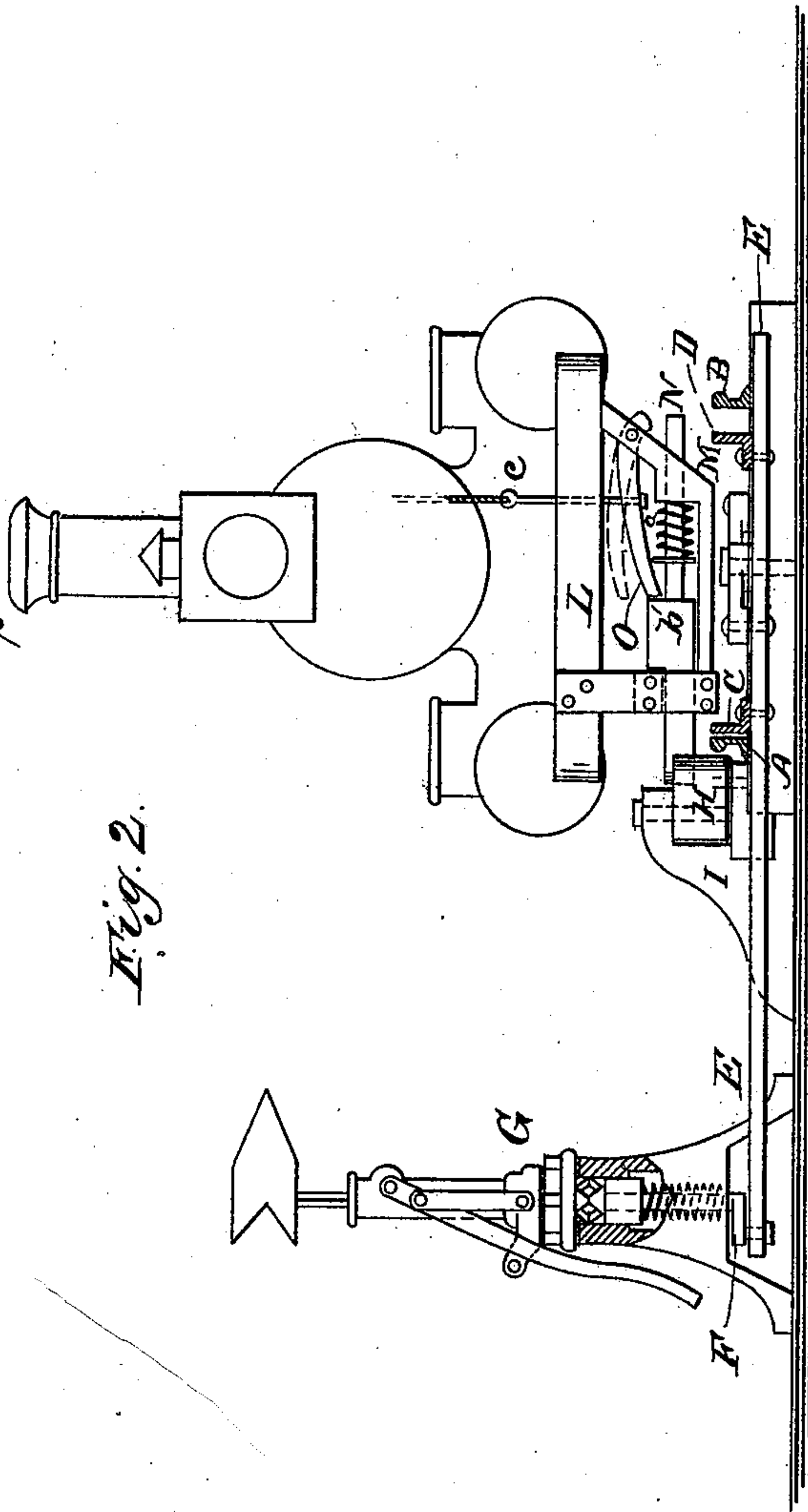


Fig. 2.

Witnesses.
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RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 338,649, dated March 23, 1886.

Application filed June 13, 1885. Serial No. 168,560. (No model.)

To all whom it may concern:

Be it known that I, JAMES B. SUFFERN, of Suffern, in the county of Rockland and State of New York, have invented a new and useful Improvement in Railway-Switches, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a plan view, and Fig. 2 is a transverse section taken on line *xx* of Fig. 1.

The object of my invention is to provide for the class of railway-switches known as "split switches" an attachment whereby the switch may be operated by the passing engine while running toward the points of the switch, thus enabling the engine to keep to the main track when approaching a split switch which has been set to divert the train to the siding or branch track.

My invention consists in a track-lever pivoted to a fixed support at the side of the track and above the general level of the track, and connected with the usual switch-actuating bar by means of a lever and connecting-rod, and, in combination therewith, of a bolt carried by the locomotive and adapted to engage the track-lever, but capable of being released so as to pass the track-lever without moving it. The fixed rail A of the railway-track is made continuous in a straight line, and forms throughout a part of the main track. The fixed rail B forms a part of the main track up to a point opposite the free ends of the spring switch-rails, beyond which it forms a part of a branch or siding.

Between the rails A B are secured the spring-rails C D, the spring-rails C forming a part of the branch or siding, and the spring-rail D forming a part of the main track. The free ends of the spring-rails C D are pivoted to a bar, E, which extends under the track-rails A B, and is connected with the crank F of the spring switch-stand G, which is of the usual construction. The switch-stand G is so arranged that when the switch is set and locked the first pair of wheels running through between the spring-rails and fixed rails in the wrong direction will operate the switch-stand, so that the spring-rails will be carried to a new position and there held.

The device thus far described is well known and is in common use, and does not therefore form a part of my invention, except as my improvements enter into combination with it.

Near the track-rail A, and a short distance from the free ends of the spring track-rails C D, is pivoted a track-lever, H, in a fixed support, I, in a plane above the top of the track-rails A B. The free end of the track-lever H is connected by a connecting-rod, J, with a lever, K, the said lever being jointed to the bar E, and pivoted to a tie between the bar E' and connecting-rod J.

To the head-block L of a locomotive is secured a stirrup, M, in which is placed a sliding spring-acted bolt, N, which projects beyond the side of the track in position to engage the track-lever H as the locomotive moves forward toward the switch. The spring *a* pushes the bolt outward, and a pawl, O, pivoted in the stirrup M, engages a shoulder, *b'*, of the bolt N, and holds the bolt rigidly in a projected position, so that when the locomotive passes along the track opposite the track-lever H the bolt N will engage the track-lever H, and by virtue of the connection of the track H with the switch-bar E, through the connecting-rod J and lever K, moves the spring switch-rails C D into a new position, where they are held by the switch-stand G, rendering the main track continuous. When it is desired to pass the track-lever H without operating the switch, the pawl O is withdrawn from the shoulder of the bolt N by pulling upon the rod *c*, when the engagement of the end of the bolt with the track-lever H results merely in pushing back the bolt without moving the track-lever. When the train approaches the switch from the opposite direction, the spring-switch is operated in the usual way, being in no manner interfered with by the addition of my improvement.

It will be seen that with my improvement the locomotive is normally in condition to keep to the main track, and that all accidents due to misplaced switches will be avoided. At the same time it is within the power of the engineer to run upon the branch or siding when desirable.

Having thus described my invention, what I

claim as new, and desire to secure by Letters Patent, is—

1. The combination, in an automatic safety-switch, of the spring switch-rails C D, the
5 track-lever H and intermediate connections, and spring-actuated track-lever-operating bolt N, carried by the locomotive and held normally by the spring in position to engage the track-lever, substantially as herein specified.
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2. The combination, with the spring track-rails C D and switch-stand G, connected there-

with, of the track-lever H, lever K and connective devices associated therewith, and the track-lever-operating bolt N, carried by the
15 locomotive, as herein specified.

3. The combination, with the switch-actuating track-lever H, of the spring-acted bolt N, carried by the locomotive, the pawl O, and rod c, substantially as herein specified.

JAMES B. SUFFERN.

Witnesses:

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