

(No Model.)

2 Sheets—Sheet 1.

H. P. SPAIN.
RAILWAY SWITCH.

No. 575,740.

Patented Jan. 26, 1897.

Fig. 1.

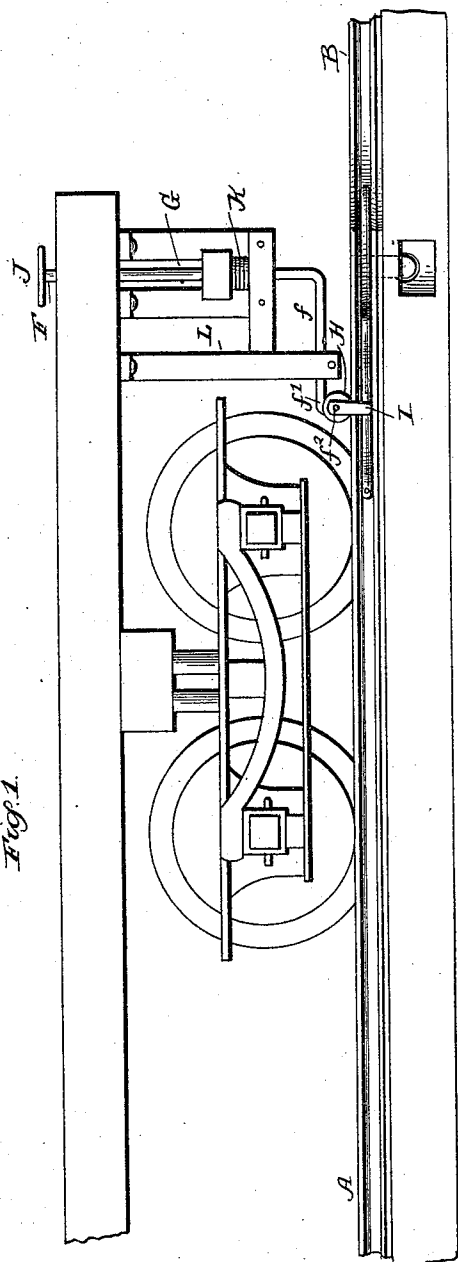
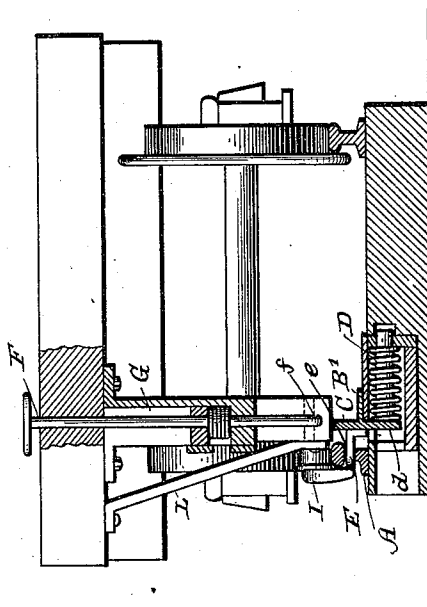


Fig. 2.



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UNITED STATES PATENT OFFICE.

HENRY PATRICK SPAIN, OF BUCHANAN, GEORGIA.

RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 575,740, dated January 26, 1897.

Application filed August 24, 1896. Serial No. 603,728. (No model.)

To all whom it may concern:

Be it known that I, HENRY PATRICK SPAIN, a citizen of the United States, residing at Buchanan, in the county of Haralson and State of Georgia, have invented certain new and useful Improvements in Railway-Switches; 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.

This invention relates to certain new and useful improvements in railway-switches; and it has for its object, among others, to provide a simple and cheap construction of switch and switch-operating device mounted upon the car, whereby the switch is operated by the gripman or motorman without the necessity of leaving the car.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the appended claims.

The invention in this instance resides in the peculiar combinations and the construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is an elevation showing the application of my invention. Fig. 2 is a vertical section through the switch, showing its spring, and a vertical cross-section through the front end of the car. Fig. 3 is a side elevation of the mechanism of the car shown in a raised position. Fig. 4 is a plan view of the track and switch.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the main track, B the side track, and C the movable switch. This is pivotally mounted at one end, as at *c*, and its other end is held to the rail by spring D, concealed beneath the road-bed, acting upon the dependent arm *d* on the end of the switch, and which is movable in the slot, providing therefor a cover by the plate B', pro-

jecting laterally from the side of the switch. Outside of the rail is a spring-arm E, one end of which is secured to the rail, and its other end bent horizontally and extending through the slot *e* in the rail and bearing against the switch near its movable end. This spring-arm is inclined outward, as shown in the drawings. It will thus be seen that when the arm is pressed inward by any cause the switch is moved against the tension of its spring, and when the pressure is removed from said arm the spring returns the switch to its normal position.

The mechanism employed for operating the switch comprises the rod F, mounted to work through the opening in the platform of the car, the portion thereof beneath the platform working through a tube or guide G, and its lower end bent or expanded horizontally, as at *f*, lengthwise of the car, then downward, as at *f'*, and horizontally, as at *f''*, and on this horizontal portion is a roller H, adapted to travel upon the upper face of the rail. At the outer end of this horizontal portion is a dependent arm I, which is adapted to travel by the side of the rail and to engage the spring-arm which moves the switch. This rod is provided at its upper end with a handle, or, if designed to be actuated by the foot, with a foot-piece J.

K is a spring confined within the tube G, and serves to normally keep the rod in its upmost position. L is a combined brace and guide for this rod.

With the parts constructed and arranged substantially as above described the operation will be apparent, and, briefly stated, is as follows: As the car approaches the switch, and if designed to be switched from the track on which it is moving, the person on the car depresses the rod against the action of its spring, which brings the lower end of the rod into such position that its roller engages the upper face of the rail and its projecting portion rides upon the side of the rail, and as it approaches the spring-arm it rides upon the same, forcing it upward and moving the switch against the tension of the spring. After the car has passed the switch the spring thereof returns it to its normal position, and the spring on the car forces the rod up into its normal position.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What is claimed as new is—

5 1. The combination with the rail and the pivoted switch on a spring-arm arranged alongside the rail and inclined outward, and having its other end passed through the rail and engaging the switch, and the spring acting to normally force the switch against the
10 rail, substantially as described.

2. The combination with the rail and a pivoted switch on a spring-arm arranged alongside the rail and inclined outward, and
15 having its other end passed through the rail and engaging the switch, and a spring mounted to act upon the switch to normally force it against the rail, and the plates carried by the

switch and covering the slot through which its arm works, substantially as described. 20

3. The combination with the rail and a pivoted switch on an inclined arm having an end passed through the rail and mounted to act upon the switch, and a spring acting to normally force the switch against the rail, 25 and a rod on the car having a portion to engage said arm, and a spring acting upon said rod to normally hold it in its uppermost position, substantially as described.

In testimony whereof I have signed this
specification in the presence of two subscribing witnesses. 30

HENRY PATRICK SPAIN.

Witnesses:

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J. J. COALSON.