S. INGRAM & G. L. ALLEN.

AUTOMATIC SWITCH.

APPLICATION FILED JAN. 11, 1909.

919,871. **Patented Apr. 27, 1909.**

Fig. 1.

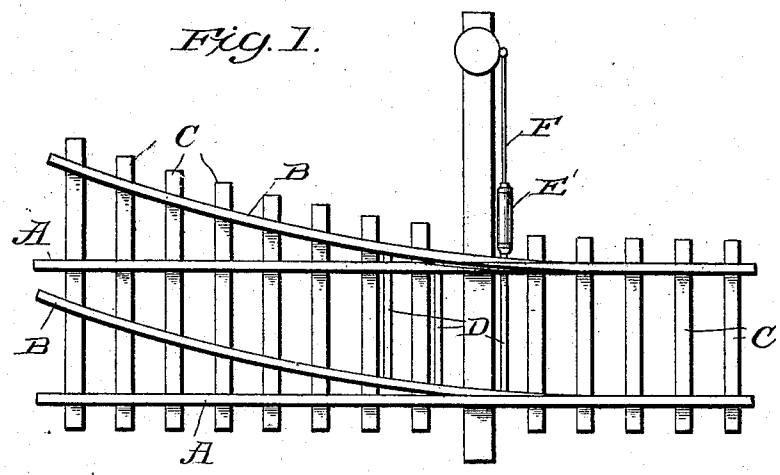


Fig. 2.

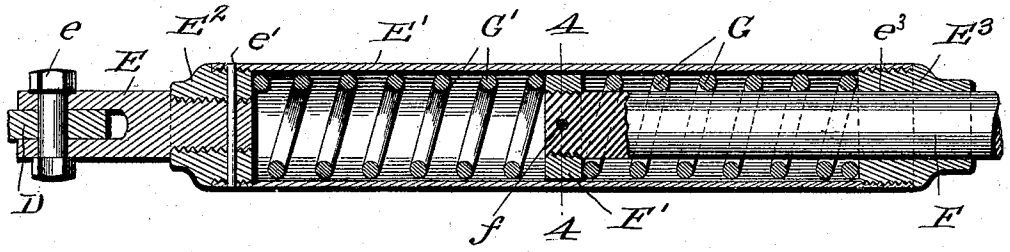


Fig. 3.

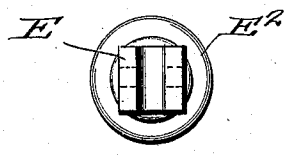
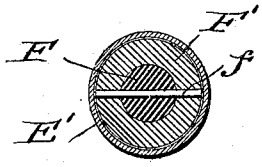


Fig. 4.



Witnesses

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AUTOMATIC SWITCH.

No. 919,871. Specification of Letters Patent. Patented April 27, 1909.

Application filed January 11, 1909. Serial No. 471,759.

To all whom it may concern:

Be it known that we, SAMUEL INGRAM and GEORGE L. ALLEN, citizens of the United States, residing at North Yakima, in the county of Yakima and State of Washington, have invented certain new and useful Improvements in Automatic Switches; and we 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.

Our invention relates to improvements in automatic switches, and is intended to provide a cheap, simple, durable and efficient spring-operated switch, whereby a train will be permitted to pass through the switch, and the parts thereof will be automatically returned to initial closed position.

Our invention will be understood by reference to the accompanying drawings, in which the same parts are indicated by the same characters throughout the several views.

Figure 1 is a plan view of the switch and main track and represents diagrammatically the switch arrangement. Fig. 2 shows a longitudinal section through the pipe containing the automatic operating device for the switch. Fig. 3 is an end view of the device shown in Fig. 2, as seen from the left, but with parts omitted. Fig. 4 is a section along the line 4—4 of Fig. 2.

A represents the main track; B, the switch member of the siding; C, the cross ties; D, the braces for the switch member; and E represents the yoke which is connected to one of the braces D, as by means of the bolt *e*. This yoke is screwed into the screw-head E^2, which is screwed into the pipe E′, and held in place by the lock pin *e*′. The other end of this pipe E′ carries the head E^3 screwed into the pipe E′, and perforated as at e^3, to permit the pasage therethrough of the rod F, leading to the switch-stand, which latter is constructed in the ordinary way, and will not be further described. This rod F carries a collar F′, which is screwed on said rod, and is held in place by the lock pin *f*. This collar is normally held in mid position by means of coil springs G and G′.

It will be noted that should a train be coming along either the main track or the siding, from the left of the device shown in Fig. 1, the switch will not interfere in any way with the travel of the train; but when the wheels near the end of the switch, their flanges will wedge the same back against the action of the spring G, causing the switch to open sufficiently to permit the train to continue along the main track, or to pass from the switch to the main track, as the case may be, and proceed toward the right. After each pair of wheels has passed, the switch automatically returns to the initial closed position, and after the entire train has passed, it will remain in closed position until automatically operated by another train. The switch will remain automatically set to switch trains coming from the right on to the siding, unless the switch is locked open at the switch-stand in the usual way.

It will be noted that the springs and plunger constituting the automatic control are incased against snow, sleet, dust and the like, and are not likely to be clogged, or get out of order; but should any repairs be necessary, it will be a simple matter to unscrew the head E^3, and take out the plunger and springs from the pipe E′.

The advantages of the herein-described construction will be obvious to anyone skilled in the art.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is:—

In an automatic switch arrangement, the combination with a switch and switch-stand, of a spring-controlled device for automatically operating said switch, comprising a plunger connected to the switch-stand, a cylinder head slipped over said plunger and provided with exterior screw-threads, a collar secured on said plunger, a second cylinder head connected to the switch and also provided with exterior screw threads, a cylindrical shell screwed to and connecting the two cylinder heads and inclosing the free end of said plunger and the collar thereon, a cylinder connected to the switch and inclosing said plunger, and coil springs mounted in said cylinder between said cylinder heads and said collar and bearing against said collar, substantially as and for the purposes described.

In testimony whereof, we affix our signatures, in presence of two witnesses.

SAMUEL INGRAM.
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Witnesses:
RUBY WHITSON,
FRED PARKER.