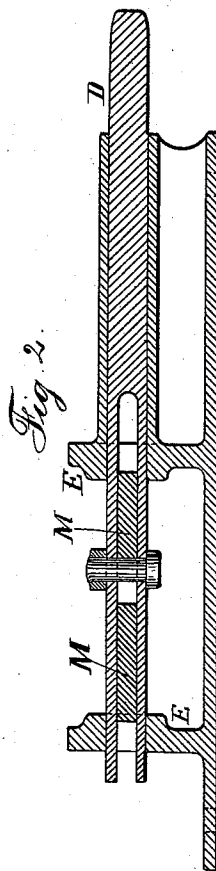
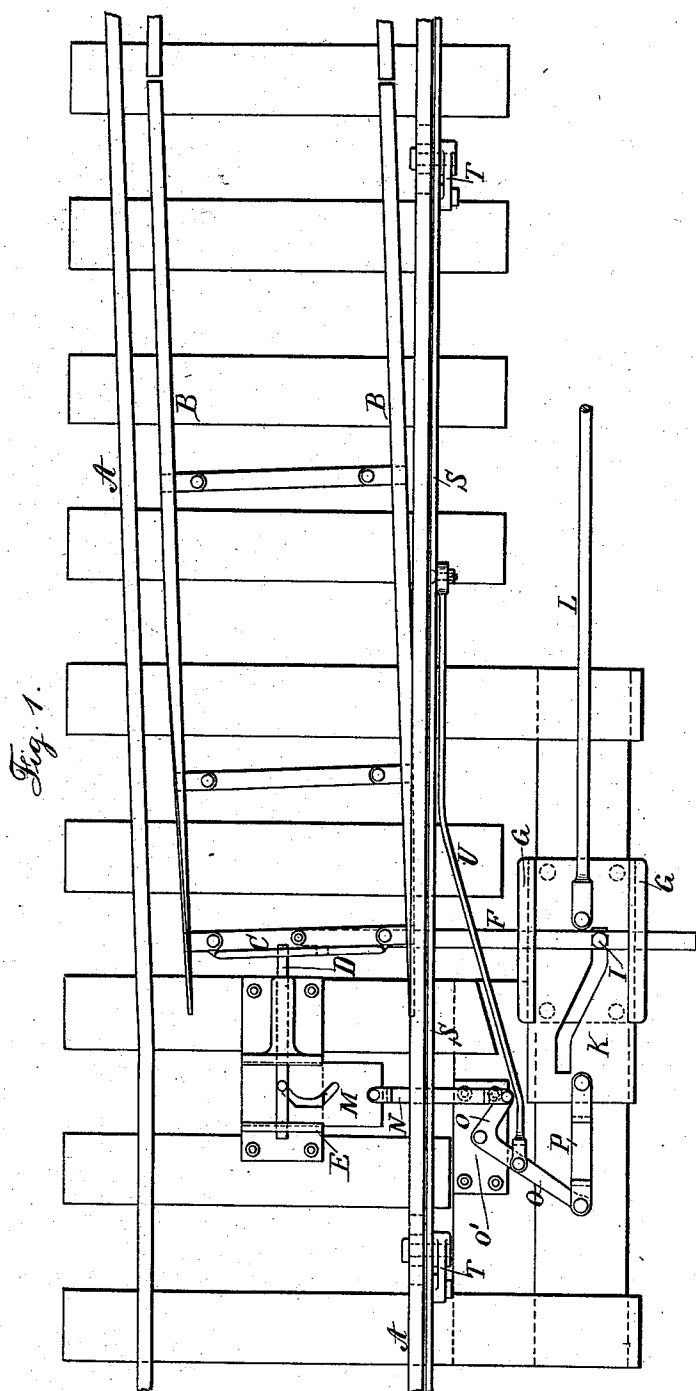


(No Model.)

I. MAY & C. & T. SPIKINS.
LOCK FOR SWITCHES.

No. 400,580.

Patented Apr. 2, 1889.



Witnesses
J. Staib.
Chas. H. Smith

Inventors:
Isaac May
Charles Spikins
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per Lemuel W. Serrell atty.

UNITED STATES PATENT OFFICE.

ISAAC MAY, OF BROOKLYN, AND CHARLES SPIKINS AND THOMAS SPIKINS,
OF NEW YORK, N. Y.

LOCK FOR SWITCHES.

SPECIFICATION forming part of Letters Patent No. 400,580, dated April 2, 1889.

Application filed January 3, 1887. Serial No. 223,167. (No model.)

To all whom it may concern:

Be it known that we, ISAAC MAY, of Brooklyn, in the county of Kings and State of New York, and CHARLES SPIKINS and THOMAS SPIKINS, of the city and State of New York, have invented an Improvement in Locks for Switches, of which the following is a specification.

This invention relates to an improvement upon the devices set forth in our Patent, No. 355,545, granted January 4, 1887, and said improvement is for simplifying the bolt and the connections made use of for holding the switch in either of the positions to which it may be moved.

In the drawings, Figure 1 is a plan view of the said improvement, and Fig. 2 is a longitudinal section in larger size through the bolt.

The track-rails A, switch-rails B, the slotted cam-plate K, the guide-flanges G for the same, and the rod L, that connects the plate K with the switch-actuating lever, are the same as set forth in our aforesaid patent, and the rod F connects the slotted cam-plate K with the cross or locking bar C of the switch, so that said switch is moved by the slotted cam-plate, and the end portions of the slot in the cam-plate K are parallel, in order that the cam-plate may be moved endwise at the commencement of the motion in either direction without disturbing the switch-rails, the diagonal portion of the slot in the cam-plate K giving the motion to such switch-rails.

Instead of making use of two bolts, as in said patent, we employ but one bolt, D, and the same is supported in a suitable stock, E, which stock has side flanges, so that the shank of the bolt slides through mortises in such vertical side flanges, and in the opposite faces of these vertical sides there are grooves for the reception of the cam-slide M, and this cam-slide has a mortise through it for the reception of a pin upon the shank of the bolt. The middle portion of this slot in the cam-plate M is parallel, or nearly so, with the edges, and the ends of the slot are inclined in oppo-

site directions. A link, N, is connected with the end of this cam-plate M and extends to the bent lever O, pivoted on the plate O', and the link P connects the other end of the lever O to the cam-slide K. It will now be understood that when the plate K is moved by the rod L the cam-slide M is also moved endwise, and that the cam-slot in the slide M withdraws the bolt D from one hole in the locking-bar C before the diagonal portion of the cam-slot in the plate K commences to move the switch-rails B, and after the switch-rails have been moved to position the other end of the cam-slot in the slide M acts upon the bolt D to project the same into the second hole in the locking-bar C during the latter portion of the movement of the cam-plate K, when the switch is not being moved, because the pin I is within the parallel end portion of the slot in the cam-plate K. By these improvements the parts are simplified and the locking-bolt is withdrawn before the switch is moved, and it is projected after the said switch has been set into place. The guard-rail S, the short links T, and the connecting-link U are similar to those in our aforesaid patent.

We claim as our invention—

The combination, with the track-rail and switch-rail, of the cam-plate K and bar F, for moving the switch-rail, and the stock E and bolt D, the shank of which slides through the stock, the cam-slide M, supported in the stock E and having a mortise with inclined ends to act upon the bolt, the link N, lever O, and link P, for connecting the plate K to the cam-slide M, substantially as set forth.

Signed by us this 29th day of December, A. D. 1886.

ISAAC MAY.
CHAS. SPIKINS.
THOS. SPIKINS.

Witnesses:

WILLIAM G. MOTT,
WALLACE L. SERRELL.