

No. 649,389.

Patented May 8, 1900.

L. N. WYATT.  
SWITCH LOCK.

(Application filed Oct. 10, 1899.)

(No Model.)

Fig. 1.

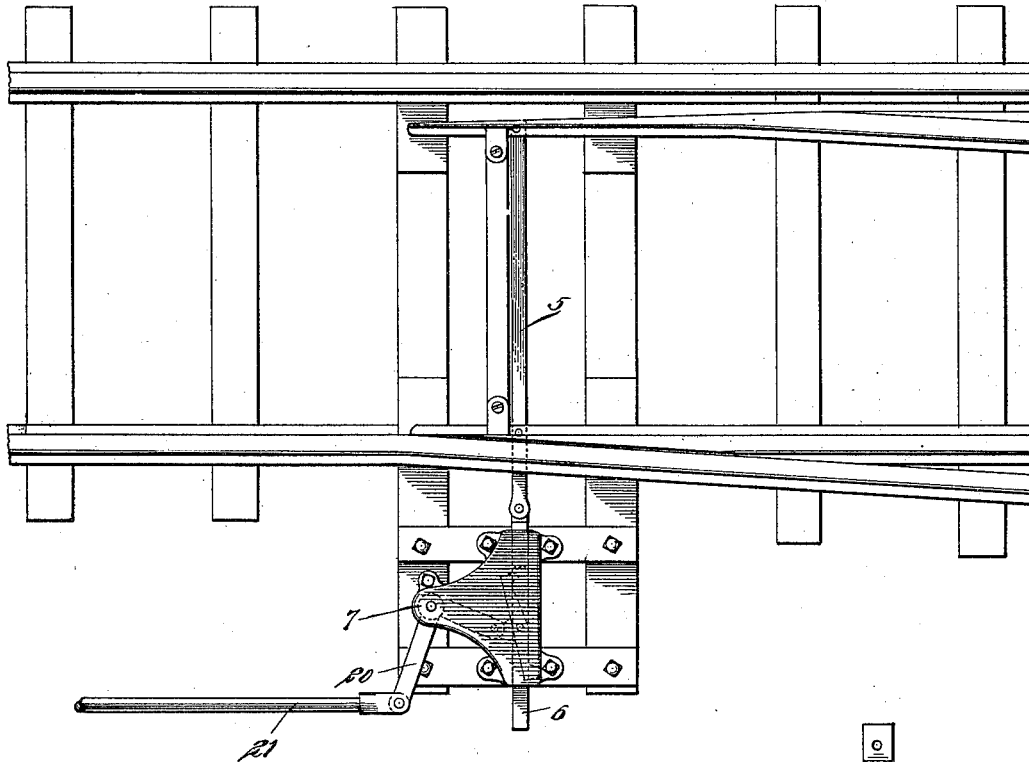


Fig. 2.

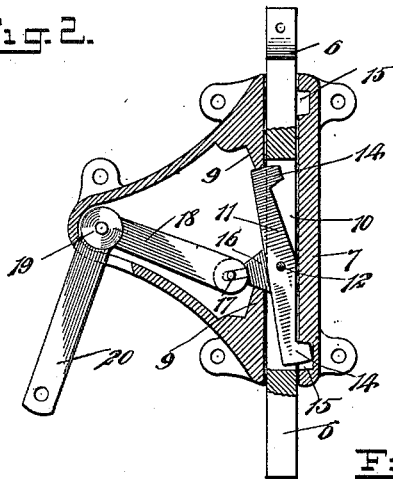


Fig. 3.

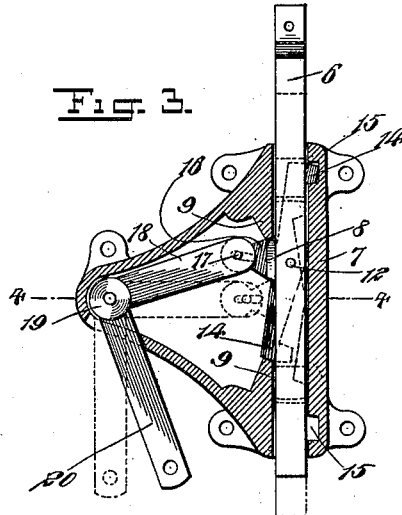
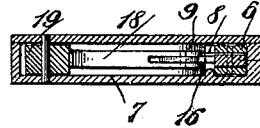


Fig. 4.



WITNESSES:

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LUTHER NORVIN WYATT, OF LEXINGTON, KENTUCKY, ASSIGNOR OF ONE-HALF TO FREDERIC J. CONN, OF SAME PLACE.

## SWITCH-LOCK.

SPECIFICATION forming part of Letters Patent No. 649,389, dated May 8, 1900.

Application filed October 10, 1899. Serial No. 733,147. (No model.)

*To all whom it may concern:*

Be it known that I, LUTHER NORVIN WYATT, of Lexington, in the county of Fayette and State of Kentucky, have invented a new and Improved Switch-Lock, of which the following is a full, clear, and exact description.

The purpose of this invention is to provide a device for throwing and simultaneously locking switches, the arrangement being such that the switches cannot be disturbed except through the medium of the regularly-provided lever or other operating device.

This specification is the disclosure of one form of my invention, while the claims define the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the invention in use. Fig. 2 is a horizontal section thereof with a part of the switch-bar extension broken away to expose the latch. Fig. 3 is a similar view, except that the switch-bar extension is not broken away, the parts in Fig. 3 being shown in a position different from that taken in Fig. 2; and Fig. 4 is a section on the line 4 4 of Fig. 3.

The switch-bar 5 has an extension 6, which is mounted to slide in a stationary casing 7 and provided with a lug 8 within the casing, the lug being movable between shoulders 9, thereby to limit the movement of the switch-bar extension 6, it being understood that sufficient movement is allowed to throw the switch from one position to the other. The switch-bar extension 6, as shown in Figs. 2 and 4, is formed with a cavity 10 therein, in which is located a latch 11, mounted to swing on a pivot 12, situated at the middle of the latch. The ends of the latch 11 are formed with transversely-extending heads 14, respectively adapted to lock in cavities 15, formed in the casing 7. When one of the heads 14 is locked in the corresponding cavity 15, the other head 14 is engaged with the shoulder 9 of the casing, which shoulder is most distant from the first-named head of the latch. It will thus be seen that the switch-bar 6 is held by the latch in either position and that when the latch is locked it engages the casing at both ends, so as to hold the bar or extension 6 doubly secure.

The latch 11 has a transverse arm 16 at its middle, which is slotted radially of the pivot 12 to receive a pin 17, carried by the arm 18 of the bell-crank lever 19, which lever is fulcrumed in the casing 7, as shown. The outer arm 20 of the bell-crank lever is connected with the rod or other connection 21, passing to the switch-tower or other point from which the switch is to be thrown as the bell-crank lever 19 is operated.

Assuming that the parts are in the position shown in Fig. 2 and that the bell-crank lever 19 be thrown to the position indicated by dotted lines in Fig. 3, it will be seen that through the medium of the arm 16 the latch 11 is rocked on the pivot 12 until it lies longitudinally with the arm 6 completely within the cavity 10 in said bar 6, disengaging its heads 14 from the corresponding shoulder 9 and cavity 15. The bar 6 is now free to slide, and the bell-crank 19, continuing its movement, throws the switch-bar extension to the position shown in Fig. 3, whereupon the lug 8 engages the adjacent shoulder 9, as shown, arresting the movement of the bar. The bell-crank, however, continues slightly, sufficiently to lock the latch 11 independently of the bar 6 and throw the head 14, which has been previously engaged with its adjacent shoulder 9, into its adjacent cavity 15 and engage the other head 14 with the shoulder 9 corresponding thereto. The switch-bar 5, having connection with its extension 6, is thrown and locked in time therewith. It will thus be seen that the switch is simultaneously thrown and locked and that the switch cannot be tampered with, it being possible to throw the switch only by the operation of the rod 21. By no possible means can the switch-bar extension 6 be otherwise moved. The casing 7 securely incloses all of the parts and protects them from injury. The top of the casing may be made removable, if desired, and suitable means may be provided for lubricating the working parts, all of which will be understood by a person skilled in the art.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a switch-lock, a stationary casing formed with spaced-apart shoulders and recesses adjacent said shoulders, a switch-bar

extension slidable through said casing, a latch pivoted between its ends on the extension and slidable with the latter through the casing, said latch being formed with heads adapted to enter the recesses in the casing and being of such a length that one head will engage with a shoulder when the other head engages an opposite recess, and means for rocking said latch and sliding the extension in the casing, as set forth.

2. In a switch-lock, a stationary casing, a switch-bar extension fitted to slide through said casing and having a cavity in one face, a latch pivoted between its ends in the cavity of the extension and of such a width that it will lie within the side edges of the extension when in longitudinal alinement with the latter whereby to permit the extension to slide through the casing, and a lever for moving said latch out of such alinement into locking engagement with the casing, as set forth.

3. In a switch-lock, a stationary casing having recesses therein and shoulders respec-

tively adjacent said recesses, a switch-bar extension slidable in the casing between the shoulders and the recesses, a latch pivoted between its ends to the extension and having heads adapted to enter said recesses whereby to lock the extension, and a lever connected to said latch whereby to rock the latter and slide the extension, as set forth.

4. In a switch-lock, the combination with a casing having recesses therein and shoulders respectively adjacent to the recesses, of a switch-bar extension mounted to move in the casing, a latch pivotally mounted on the switch-bar extension and having heads at its ends, the heads being adapted alternately to engage with the walls of the recesses and with the shoulders of the casing, and means for throwing the switch-bar extension, such means having connection with the latch.

LUTHER NORVIN WYATT.

Witnesses:

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