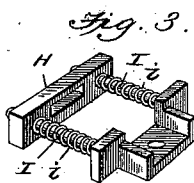
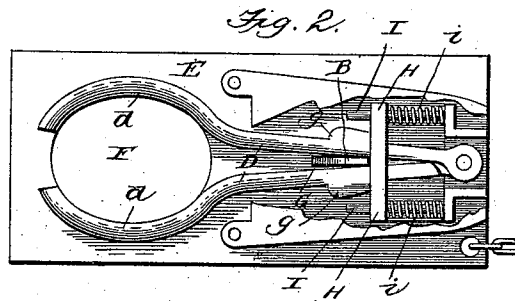
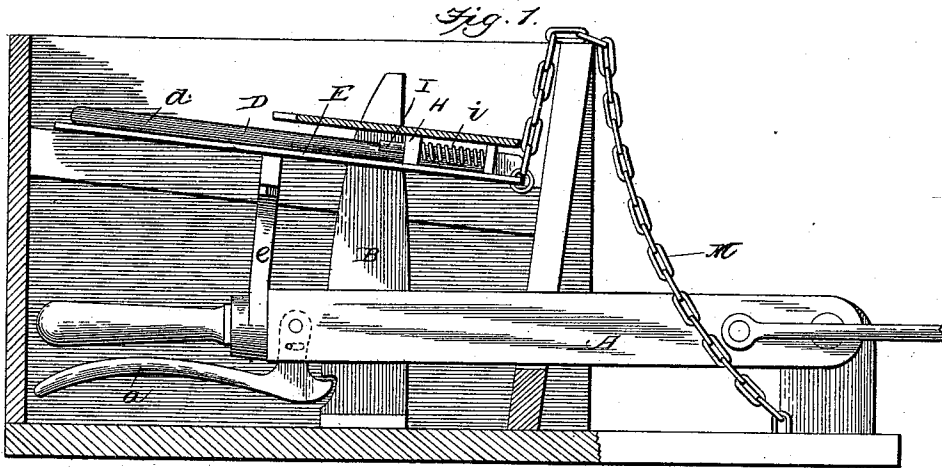


(No Model.)

D. STRICKLER.
SWITCH OPERATING MECHANISM.

No. 538,292.

Patented Apr. 30, 1895.



WITNESSES:

Edwin L. Bradford

Ralph Wormelle

INVENTOR

David Strickler

BY

Patrick O'Farrell

ATTORNEY.

UNITED STATES PATENT OFFICE.

DAVID STRICKLER, OF WRIGHTSVILLE, PENNSYLVANIA.

SWITCH-OPERATING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 538,292, dated April 30, 1895.

Application filed September 4, 1894. Serial No. 522,079. (No model.)

To all whom it may concern:

Be it known that I, DAVID STRICKLER, a citizen of the United States of America, residing at Wrightsville, in the county of York and State of Pennsylvania, have invented certain new and useful Improvements in Switch-Operating Mechanism, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to switch operating mechanism and aims to provide an attachment to be applied to a switch lever to prevent a man from leaving his post so long as the switch is open and compelling him to close the switch before leaving same.

For a full understanding of the invention reference is to be had to the annexed drawings and the letters of reference marked thereon, taken in connection with the following description.

Figure 1 is a side elevation of a switch lever showing the application of the invention, parts being broken away to disclose more clearly the relative disposition of the parts. Fig. 2 is a detail view of the mechanism for actuating the gripping arms. Fig. 3 is a detail view of the means for locking the gripping arms about the wrist of the person operating the lever for throwing the switch.

Similar letters refer to corresponding parts in the several views.

The switch lever A is of the usual type employed in operating railway switches and has the well known hand latch *a* by means of which it is held in a normal position by engagement with a standard B which is slightly curved in length and tapers to pass between and spread the gripping arms D. A plate E is attached to the lever by a post *e* and has a hand opening F and a slot G, the latter receiving the standard B. The gripping arms D are pivoted at one end to the plate E and their outer ends *d* curve in opposite directions, at a point corresponding with the position of the opening F to conform and embrace the wrist of the switchman. Cam portions *g* are provided on the outer edges of the gripping arms D about opposite the slot G.

A yoke H is mounted on the gripping arms and normally occupies a position corresponding with the cams *g*. This yoke is adapted

to move on the inner portions of the arms and release and close them on the wrist of the switchman.

Parallel rods I pass through openings in the ends of the yoke and receive springs *i* by means of which the yoke is held in a normal position. The inner portions of the gripping arms and the actuating mechanism for the latter are suitably housed to protect them from the weather and from being tampered with by evil disposed persons.

The gripping device is held or secured to the frame work or part to which the lever A is pivoted by any suitable connection, as the chain M, to prevent the person from leaving his post and carrying off the retaining device either inadvertently or by design after the switch is thrown thereby making it incumbent upon him to replace the lever A, and put it in a normal position in order to free himself from the gripping or retaining device.

Inasmuch as the post *e*, is detachably connected with the switch lever to admit of the switchman having a certain amount of freedom when at his post to attend to other details the advantage of the chain M, or other connection is obvious.

The operation of the invention is as follows: The parts are disposed so that a switchman to reach the levers A and hand latch *a* must thrust his hand through the opening F and between the oppositely curved ends *d* of the gripping arms D. Normally the standard B extends between the gripping arms and holds the yoke H back against the tension of the springs *i* thereby permitting the gripping arms to stand open. On operating the lever to open the switch the yoke is released and the springs *i* regaining themselves press the said yoke forward over the cam portion *g* and close the gripping arms about the wrist of the switchman and hold him so long as the switch is open. The lever must be returned to a normal position before the gripping arms will release their hold. As the lever is replaced to close the switch, the standard B will pass through the slot G and engage with the yoke H and force it back against the tension of the springs *i* and release the gripping arms from their hold on the switchman's wrist.

I claim—

1. The combination with an operating lever, of a plate having a hand opening and a slot, gripping levers pivoted to the plate, a spring actuated yoke adapted to move upon the levers to close about the wrist of the switchman, and a standard adapted to pass through the said slot and press back upon the yoke and release the gripping levers, substantially as described.
2. In combination a switch-operating lever, a plate having a hand opening and a slot, gripping levers pivoted to plate, a yoke adapted to move upon the gripping levers, parallel rods working loosely through the ends of the yoke, springs mounted upon the rods and exerting a forward pressure upon the yoke, and a standard to press through the said slot and move the yoke backward against the pressure of the said springs, substantially as and for the purpose described.
3. The combination with an operating lever, of yielding gripping arms, a yoke to move upon the arms, to close the same, a spring to actuate the yoke, and a releasing device to liberate the person, substantially as set forth.
4. The combination with an operating lever, of yielding arms having cam portions, a spring actuated yoke to close the arms on the wrist of the operator, and a releasing device, substantially as described.
- In testimony whereof I affix my signature in presence of two witnesses.
- DAVID STRICKLER.
- Witnesses:
CASTOR H. A. DISSINGER,
WM. H. FLORA.