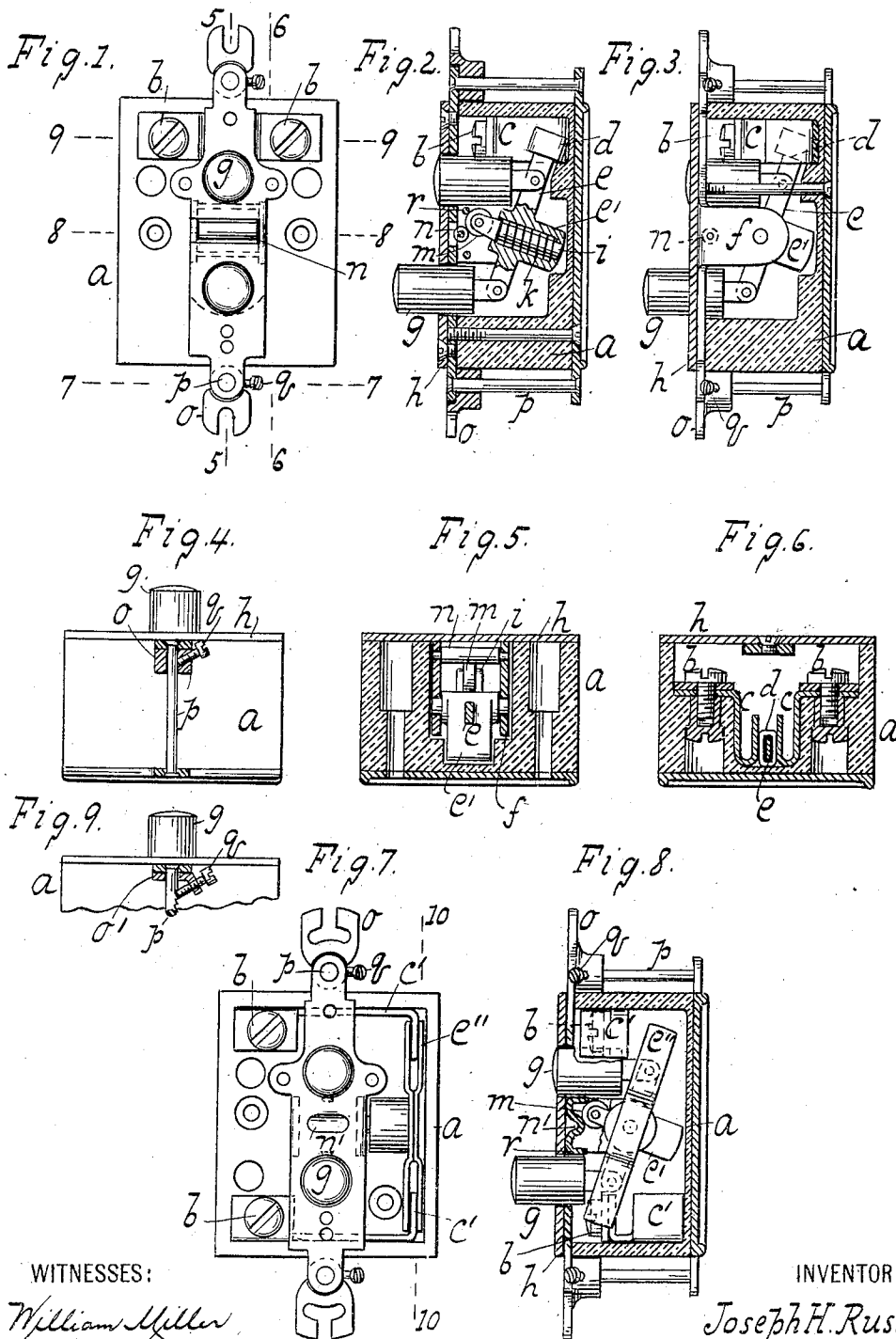


J. H. RUSBY.
ELECTRIC SWITCH.
APPLICATION FILED JUNE 1, 1904.



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JOSEPH H. RUSBY, OF NUTLEY, NEW JERSEY.

ELECTRIC SWITCH.

No. 796,360.

Specification of Letters Patent.

Patented Aug. 1, 1905.

Application filed June 1, 1904. Serial No. 210,712.

To all whom it may concern:

Be it known that I, JOSEPH H. RUSBY, a citizen of the United States, residing at Nutley, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Electric Switches, of which the following is a specification.

This invention resides in certain details of construction set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is a plan view of a switch embodying this invention. Fig. 2 is a section along 5 5, Fig. 1. Fig. 3 is a section along 6 6, Fig. 1. Fig. 4 is a section along 7 7, Fig. 1. Fig. 5 is a section along 8 8, Fig. 1. Fig. 6 is a section along 9 9, Fig. 1. Fig. 7 is a plan view of a modification. Fig. 8 is a section along 10 10, Fig. 7; and Fig. 9 shows a modification.

In the drawings is shown a box or receptacle *a*, of porcelain or other suitable material. At the binding-screws *b* are shown terminals *c*. When the circuit-closer *d* contacts with the terminals, the circuit is established. When moved or swung away from the terminals to be out of contact therewith or to leave the gap therebetween unfilled, the circuit is broken. This circuit-closer or plug *d* in Figs. 2 and 6 is shown in form of a collar or ring-shaped and carried by an arm or lever *e*. Suitable insulating material being interposed between the arm and the circuit-closer before the latter is slipped or secured on the arm, such circuit-closer while closing the contact between the terminals will not have any current escaping to or along the arm or blade *e*. The arm or its block or part *e'* is shiftable or mounted to pivot or swing in bearings *f*, so as to bring the closer *d* into and out of contact. The buttons *g* being connected or pivoted to suitable points of the arm serve to actuate the latter. These buttons could be dark and light faced, as known in the case of push-buttons; but this is a detail.

The bearings *f* are suitably supported. They can be formed on or made to depend or extend from the cover *h* or applied in any suitable manner.

The block *e'* has a spring-pressed plunger *i*, Fig. 2. The spring is shown at *k*. To insure easy working of the switch, an antifriction arrangement is provided. The plunger is shown with a roller *m* and the top strap with a roller *n*. As one button or another is

pressed to move or snap the switch the rollers *m n* slide past one another, the plunger playing or being pressed in and sprung out of its seat a certain amount at each snap of the switch.

Instead of a roller *n* a hump or curved surface *n'*, Fig. 8, could be employed; but a roller *n* is preferable or is more effective as an antifriction device.

The circuit-closers *e''* in Fig. 8 are shown as being forked and coming into each side of terminals *c'*, but they open and close the circuit as the buttons *g* are pushed or moved and the closers swing from and to the terminals *c'*.

The play of block *e'* or the swing of the block or its arm can be limited by stops. In Fig. 8 are shown pins *r*, which serve for stopping the swing or play of the circuit-closer.

The switch or box can be secured in various adjustments by lugs *o*, which can be rotated or swung as well as slid or moved along pins or rods *p* and fixed or clamped by set-screws *q*. Each lug has what might be called a "T-shaped" slot or slots at an angle to one another. The transverse slot or branch is shown curved or arc-shaped, which allows swinging of the attached switch to vertical or other adjustment. One slot or branch opens through an end of the lug to allow the lug slipping under the head of a screw or other attachment. An easy way of adjusting is to secure the lugs *o* in position or to the wall. After the lugs are applied the switch or its pins *p* can be slid one way or another through the lugs. When in required position, the switch is stopped or fixed by suitable means—such, for instance, as clamping or fixing screws *q*.

The lug *o* can be made of suitable form and manner, as by casting or bending a suitable piece of metal. In Fig. 4 the lug is shown cast or block-shaped, and in Fig. 9 the lug *o'* is shown as a bent or sheet-metal structure.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A switch comprising a shiftable block with a plunger and an antifrictional bearing-surface against which the plunger acts.

2. A switch comprising a shiftable block or piece with a plunger having an antifrictional bearing-roller and an antifrictional bearing-surface against which the plunger acts.

3. A switch comprising a shiftable block

with a plunger and an antifriction-surface consisting of a roller against which the plunger acts.

4. A switch comprising a block with a plunger having an antifriction-roller, and an antifriction-roller for the plunger-roller.

5. A switch comprising a shiftable block with a blade, terminals between which the blade is made to enter to close the circuit, stops and a spring-plunger with antifriction-roller for the block made to strike against or be arrested by the stops to limit its movement.

6. A switch comprising a shiftable block with a blade, an insulated circuit-closing sleeve on the blade, terminals between which the sleeve is made to enter or snap, a spring-pressed plunger with roller in the block, stops for the plunger and an antifrictional bearing-surface against which the roller is made to act.

7. A switch comprising a shiftable block with plunger, and an antifrictional bearing-surface and stops for the plunger.

8. A switch having a pin, a lug made to swing and slide on the pin and a set-screw to allow adjustment of the lug on the pin for properly supporting or securing the switch.

9. A switch having a pin, a lug with angular slots made to swing and slide on the pin and a set-screw for adjusting the lug and switch, the transverse slot being curved to allow rotary adjustment.

10. A switch, a lug, and a pin forming a movable connection between the switch and lug to allow the switch to be adjusted or leveled.

11. A switch, a lug, and a pin forming a movable connection between the switch and lug, and securing means for fixing or securing the relative position of the pin and lug to allow adjustment of the switch.

12. A switch having a lug with slots placed at an angle to one another, the transverse slot being curved or arc-shaped to allow the switch to be set to vertical position while the longitudinal slot allows the switch to be set to a different height or level.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOSEPH H. RUSBY.

Witnesses:

CHAS. E. POENSGEN,
W. C. HAUFF.