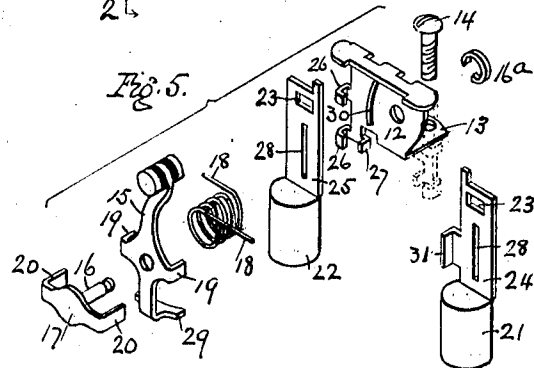
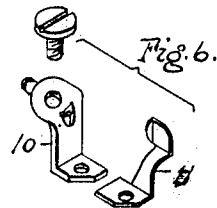
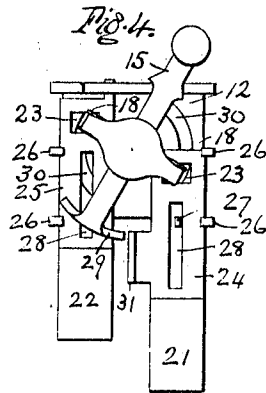
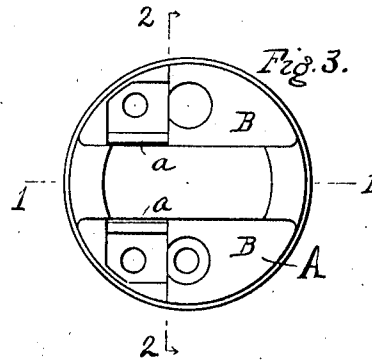
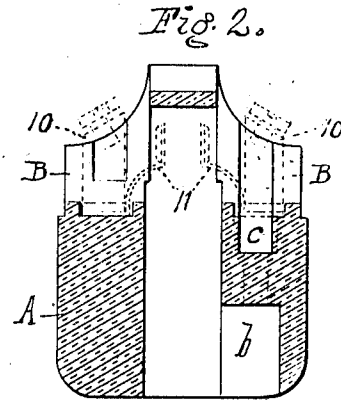
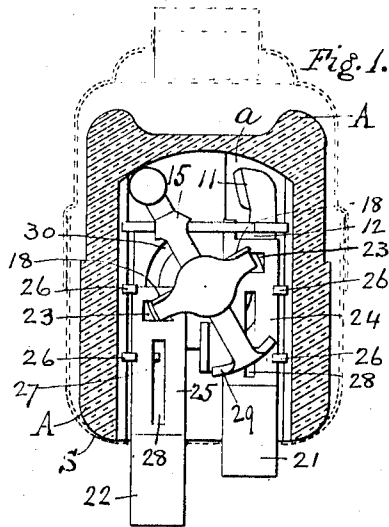


G. B. THOMAS.
ELECTRIC SWITCH.
APPLICATION FILED FEB. 3, 1910.

1,003,954.

Patented Sept. 19, 1911.



WITNESSES:
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UNITED STATES PATENT OFFICE.

GEORGE B. THOMAS, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE PERKINS ELECTRIC SWITCH MANUFACTURING COMPANY, OF BRIDGEPORT, CONNECTICUT, A CORPORATION OF CONNECTICUT.

ELECTRIC SWITCH.

1,003,954.

Specification of Letters Patent. Patented Sept. 19, 1911.

Application filed February 3, 1910. Serial No. 541,682.

To all whom it may concern:

Be it known that I, GEORGE B. THOMAS, a citizen of the United States of America, and residing in the city of Bridgeport, in the county of Fairfield and State of Connecticut, have invented a certain new and useful Improvement in Electric Switches, of which the following is a specification.

My invention relates to electric switches and particularly pendent electric switches and the object of my invention is to provide a compact and efficient device of this character of novel and improved construction.

In the accompanying drawings, Figure 1 is a vertical section on lines 1—1, Fig. 3, through a pendent switch in which my invention is embodied; Fig. 2 is a vertical section through the porcelain shell alone on the line 2—2, Fig. 3; Fig. 3 is a plan of the porcelain shell; Fig. 4 is a side elevation of the switch mechanism of Fig. 1 showing the same in the "on" position; Fig. 5 is a perspective of this mechanism showing the parts detached; and Fig. 6 is a perspective of the wire and switch terminals detached.

In the form illustrated the present switch comprises a hollow porcelain body A of the inverted cup type having its upper portion cut away to form inclined shoulders B and recessed on opposite sides to receive binding posts 10 beneath which are clamped the switch terminals 11. The latter project slightly through apertures *a* in the porcelain into the switch chamber within the porcelain where they may be engaged by the make and break switch piece, while the binding screw ends of the posts 10 are angled over the inclined shoulders of the porcelain thus minimizing the danger of wire ends finding their way into the switch chamber.

The switch mechanism proper comprises a switch frame 12 with offset securing lug 13 adapted to enter the recess *b* in the lower portion of the switch chamber. The inset *c* above the recess *b* together with the communicating hole between these, affords a passage for the securing screw 14 by means of which the frame is rigidly held in position. A switch member 15 of usual type oscillates on the switch spindle 16, which may be conveniently carried by the rocker 17 and secured on the opposite face of the frame 12 by washer 16^a. The legs 18 of the op-

erating spring are engaged as usual by legs 19 and 20 on the switch member and rocker respectively.

Instead of pivoting the rocker to the push buttons, 21 and 22 or connecting the same thereto by links as is common, I provide a sliding connection through cross slots 23 in the plates 24 and 25, which the legs 20 of the rocker enter. It is thus possible to vertically guide the plates by lugs 26, 27 struck up from the frame 12 (the lug 27 entering the slot 28 in the plate), and inasmuch as the push buttons are rigid therewith, they constantly maintain a perpendicular position and do not tend to bind in the holes in the shell S as is the case when they are pivoted to the rocker and are inclined from the perpendicular by the swinging of the rocker connection through an arc. If desired, the lugs 20 of the rocker may be made of sufficient length to project through the plates 24, 25 and enter the guide slots 30 formed in the frame.

The snap make and break of the switch is secured by the stop 29 on the switch member which engages the offset flange 31 on the plate 24, serving as a detent. By arranging this detent about midway of the arc through which the stop 29 moves and making the latter of suitable size, a single detent is made to perform the service commonly performed by two.

While the structure described is a simple and efficient embodiment of my invention I do not limit myself to the details shown, but claim—

1. In a push switch mechanism a switch frame, a push button with longitudinally and transversely slotted push plate juxtaposed to said switch frame, a guide lug projecting from said switch frame into the longitudinal slot in said push plate, angled retaining lugs struck from said frame and loosely embracing an edge of said push plate whereby said push plate is guided rectilinearly, in combination with a rocker having a lug projecting into the transverse slot in said push plate to form a sliding connection therewith, substantially as described.

2. In a push-switch mechanism, a switch frame with securing flange offset at one end and a flange with guide apertures offset at the opposite end of said frame, in combination with a push button with push plate

juxtaposed to said frame retaining guide lugs therefor on said frame to insure only a rectilinear movement for said push plate, and an extension on said plate entering the
5 guide apertures in the flange offset from said frame, substantially as described.

3. In a push switch mechanism, a switch frame with curvilinear guide slot, a push button with transversely slotted push plate
10 juxtaposed to said frame, said transverse slot in the push plate registering with the curvilinear guide slot in the switch frame, means for guiding said push plate rectilinearly on said frame, and a pivoted rocker
15 having a lug passing through said transverse slot in the push plate and entering the slot in the switch frame.

4. In a push switch, a push button with push plate, a flange thereon serving as a
20 detent, a switch member provided with a

stop lug engaging said detent first on one side and then on the other, for the purpose described.

5. In a push switch a porcelain body of the inverted cup type with inclined shoulders and apertures opening into the upper
25 portion of the switch chamber, together with switch terminals entering said apertures, and binding posts securing said terminals in position, the binding screw portion of said
30 posts being angled over the inclined shoulder of the porcelain, as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

GEORGE B. THOMAS.

Witnesses:

H. U. BADEAU,

G. W. GOODRIDGE.