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ELECTRIC SWITCH

Filed April 6, 1928

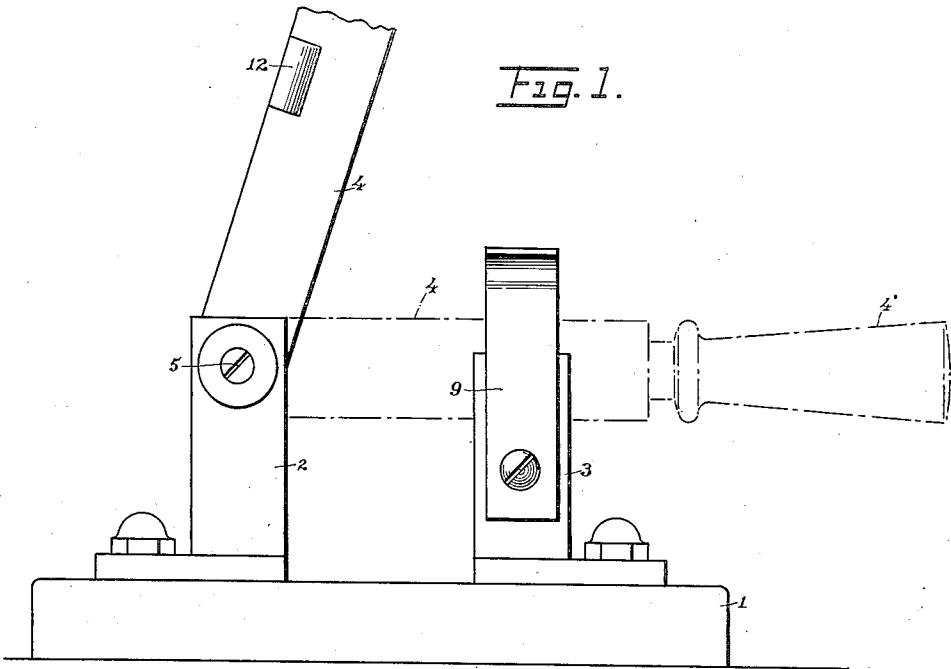


Fig. 1.

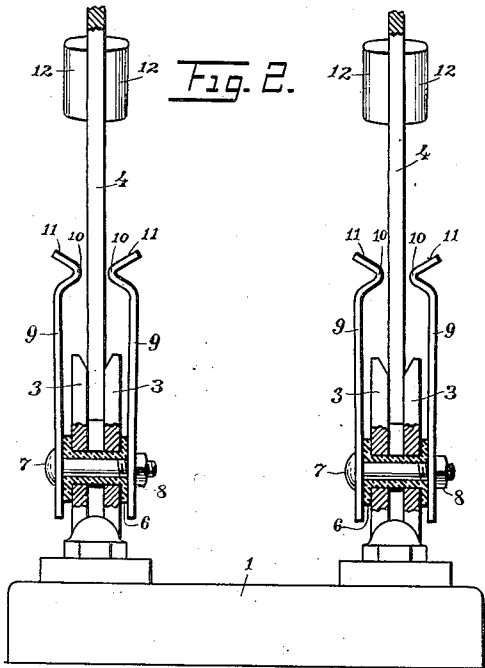


Fig. 2.

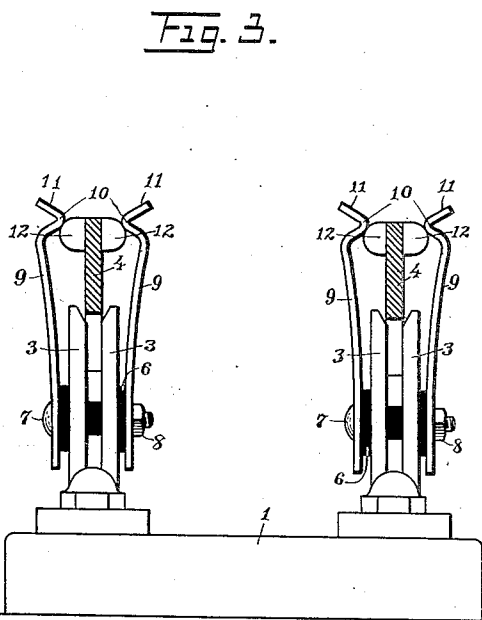


Fig. 3.

WITNESSES
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ELECTRIC SWITCH

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This invention relates to electric switches.

An object of the invention is to provide a switch with automatic, preferably mechanical means which compels the movable member of the switch to complete its movement when it 5
nears a contact or contacts so as to prevent any possibility of the movable switch member being positioned so close to the contact as to permit the electric current to arc or otherwise 10
pass from the contact to the movable member or vice versa. In other words, I provide a manually movable switch with means which complete the closing of the switch when such 15
movement is initiated manually.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrange- 20
ments of parts, which will be more fully hereinafter described and pointed out in the claim.

In the accompanying drawings—

Figure 1 is a view in side elevation of a standard type of electric switch, showing in 25
full lines the blade or movable member in open position and in dotted lines said member in closed position;

Figure 2 is a view in front elevation of the standard type of switch shown in Figure 1 30
with parts in section and parts broken away for clearness;

Figure 3 is a view similar to Figure 2, showing the movable blades or members as they 35
near closing position, with my improved mechanical means functioning to complete such closing movement.

I illustrate my invention in connection with a standard type of switch, in which 1 resem- 40
bles a base of insulation and 2 and 3 are contacts adapted to be electrically connected by blades or members 4, said blades or members preferably constituting a single movable element 45
pivotally connected to the contacts 2, as shown at 5, and having an ordinary type of handle 4'.

The contacts 3 each comprise a pair of plates between which the blades 4 are mov- 50
able to close the electric circuit. The contacts 3, 3 support a tubular member 6 of insulation through which a bolt 7 is passed having a nut 8 thereon, the head of the bolt and the nut 8

adapted to clamp perforated spring tongues 9, 9 to opposite ends of the insulation tube 6. These spring tongues 9 extend above the con- 55
tacts 3 and have inwardly bent, offset cams 10 adjacent their outer ends, with the extremities of the tongues flared outwardly, as shown at 11, providing an entrance for enlargements 12 on opposite sides of the blades 4.

The enlargements 12 are preferably round- 60
ed so that they also constitute cams, and they are properly positioned so that when they are forced between the cams 10 of the tongues 9 the blades will be close to the contacts 3 and the inward pressure of the tongues 9 due to 65
the cam action against the enlargements 12 will complete the movement of the blades 4, causing the latter to move between the con- 70
tacts 3, 3 and close the circuit. In other words, the forcing of the enlargements 12 between the tongues 9 forces the tongues out- 75
wardly, and inward movement of the tongues when permitted completes the motion of the blades 4 to insure the closing of the circuit.

By reason of this construction it is utterly 80
impossible for an operator to leave the blades close enough to the contacts 3 to allow any passage of current or any arcing because as soon as the blade nears the contacts 3 the spring tongues will complete the movement 85
of the blade to close the circuit.

While I have illustrated what I believe to be a preferred embodiment of my invention it is obvious various changes and alterations might be made in the general form of the 90
parts described without departing from my invention and hence I do not limit myself to the precise details set forth but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and 95
scope of the appended claim.

I claim:

The combination with a switch, including a pair of contacts spaced apart, a pivoted blade movable between the contacts to close 100
the circuit, enlargements on opposite sides of the blade, and spring tongues exerting cam action on the enlargements to complete the closing movement of the blade when said movement is manually initiated.

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