

G. D. BROOKINS & J. C. VETTER.
 MULTIPLE ELECTRIC LIGHT SWITCH.
 APPLICATION FILED APR. 21, 1910.

984,534.

Patented Feb. 21, 1911.

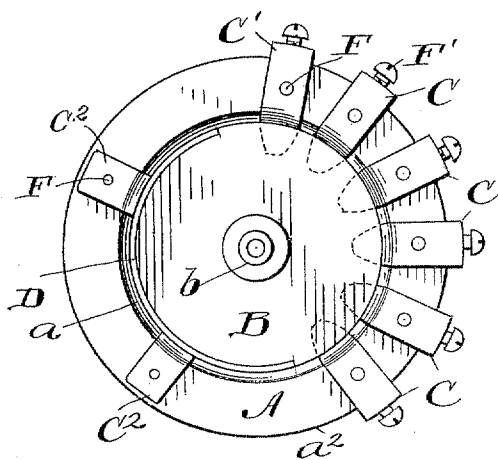


FIG. 1.

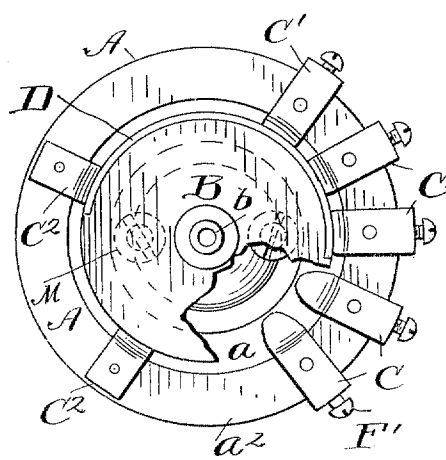


FIG. 2.

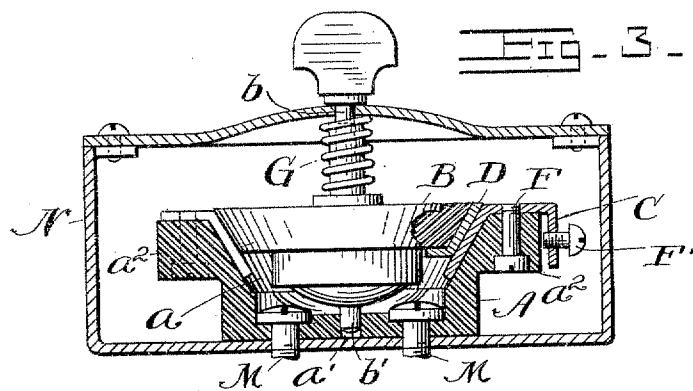
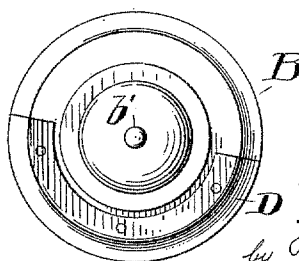


FIG. 3.

FIG. 4.



WITNESSES
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GUY D. BROOKINS AND JOHN C. VETTER, OF CLEVELAND, OHIO, ASSIGNORS OF ONE-THIRD TO CLARENCE H. COLLINGS, OF CLEVELAND, OHIO.

MULTIPLE ELECTRIC-LIGHT SWITCH.

984,531.

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Application filed April 21, 1910. Serial No. 556,703.

To all whom it may concern:

Be it known that we, GUY D. BROOKINS and JOHN C. VETTER, citizens of the United States, and residents of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Multiple Electric-Light Switches, of which the following is a full, clear, and exact description.

The object of this invention is the provision of a simple electrical switch by means of which a plurality of electric light circuits, or any desired number of such circuits may be completed or broken at will.

The invention is illustrated in the accompanying drawing, in which;

Figure 1 is a front elevation of the female member of the switch mechanism. Fig. 2 is a front elevation partly broken away of said switch mechanism. Fig. 3 is a central sectional view of said switch mechanism and an ordinary switch box in which it is secured. Fig. 4 is a bottom view of the male member of the switch.

The switch includes two relatively rotatable members A and B. The latter has the form of a thin frustum of a cone; and the former has a recess *a* for the reception of the member B. It has also an external annular flange, *a*², for the reception of the screws F which pass through it from the rear side and screw into the plates C, C', C² to fasten them in place. These plates extend across the front face of the member A, to which they are secured as stated, and are then bent into said recess and into such shape and position that they furnish a conical support for the conical surface of the member B. The plates C and C' are contact plates, and their outer edges are severally bent backward for the reception of screws F' by means of which circuit wires can be connected with them. It is intended that one of the end members, for example, C', of this series of contact plates, shall be connected with the leading-in-wire, and that all of the plates C shall be connected with leading-out-wires which go to the several electric light circuits to be controlled. The two plates C² have no electrical function but are merely employed to complete the conical bearing for the member B. These plates C, C' are substantially equally spaced and the entire series should occupy a space no greater than about one-half of the periphery of the recess. The

member B is also made of insulating material, and it has a long metallic contact plate D let into its conical edge. This plate must be long enough to contact with and electrically connect all of the plates C, C' and yet be so short that when the member B is turned to one position it will not connect plate C' with any of the plates C.

The member A is to be connected by screws M to the back plate of the switch box N. The member B is provided with a stem *b* which projects forward through the removable cover *n* of the switch box. A spring G surrounds this stem, and thrusts against the switch box cover and the member B so as to hold the latter firmly against its bearing furnished by the plates C, C', C². The member B has a cylindrical stem *b*' on its rear end which enters a recess *a*' in the rear end of member A and thereby prevents displacement of the member B.

It is apparent that the switch member B may be turned so as to carry its contact plate D to the positions where it will contact with and electrically connect the plate C' with none or one or any number of plates C, thereby breaking all the light circuits or completing as many thereof as desired.

Having thus described our invention, we claim:—

1. In a multiple switch, the combination of a switch member A made of insulating material and having a recess *a*, and a series of contact plates fixed to said member and bent back into said recess, with a frusto-conical switch member B mounted to turn upon the bent back parts of said contact plates, and a contact plate which is set into the conical edge of the member B and is of such areal length that it may contact with all or any desired number of the contact plates first mentioned.

2. In a multiple switch, the combination of a switch member A made of insulating material and having a central recess and an external annular flange, a row of contact plates fixed to the face of said member and having their inner ends bent back into said recess, binding screws carried by the outer ends of said contact plates, and screws going forward through the flange of the member A to connect the contact plates thereto, with a frusto-conical switch member B mounted to turn upon the bent back parts

of said contact plates, and a contact plate which is set into the conical edge of said member B and is of such areal length that it may contact with all or any desired number of said contact plates first mentioned.

3. In a multiple switch, the combination of a block made of insulating material having a recess *a*, a series of contact plates fixed to said member and bent back into said recess, and a switch box to which said switch member B is secured, with a frusto-conical switch member B mounted to turn upon said bent back parts of said contact plates, a contact plate which is set into the conical edge of said member B and is of such areal

length that it may contact with all or any desired number of said contact plates first mentioned, said member having also a stem which extends out through a hole in the switch box, and a spring surrounding said stem and compressed between the member B and the switch box cover.

In testimony whereof, we hereunto affix our signatures in the presence of two witnesses.

GUY D. BROOKINS.
JOHN C. VETTER.

Witnesses:

H. R. SULLIVAN,
E. L. THURSTON.