(No Model.)

J. HUTCHINSON.

ELECTRIC SWITCH.

No. 522,597. Patented July 10, 1894.

Fig. 1.

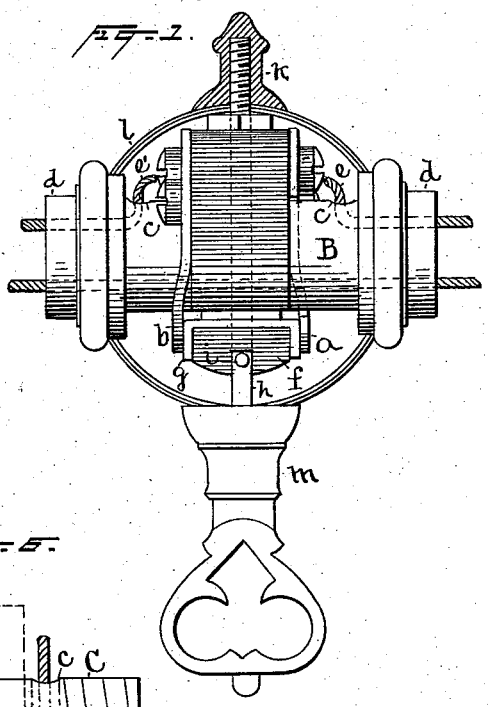


Fig. 5.

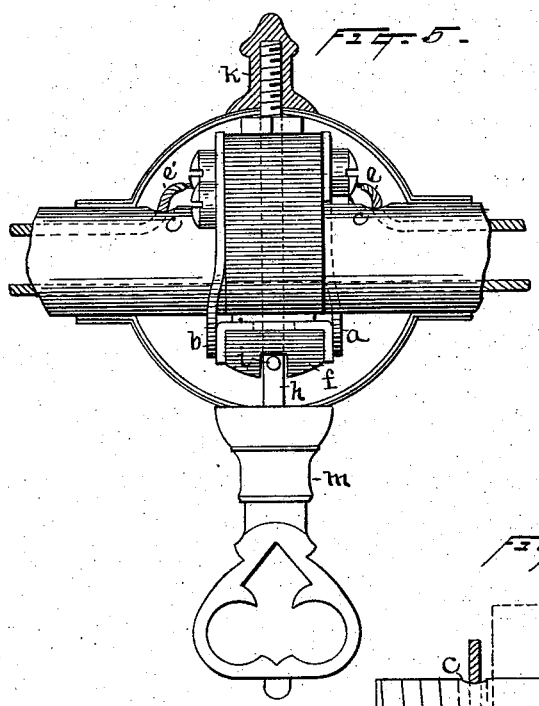


Fig. 6.

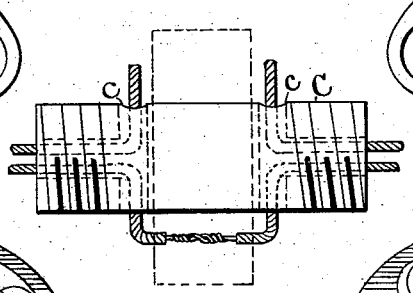


Fig. 2.

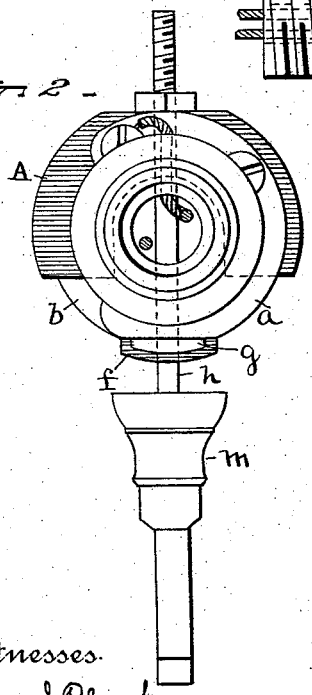


Fig. 3.

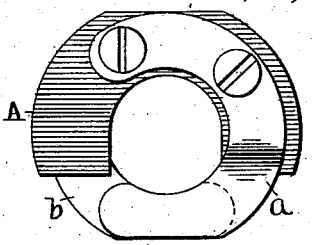
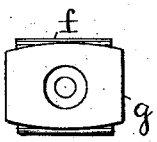


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOSEPH HUTCHINSON, OF NEW YORK, N. Y.

ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 522,597, dated July 10, 1894.

Application filed June 14, 1893. Serial No. 477,553. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH HUTCHINSON, a citizen of the United States, residing at New York city, in the county and State of New York, have invented a certain new and useful Improvement in Switches for Electric-Light Fixtures, of which the following is a specification.

My invention relates to a switch or circuit-controller designed to be used in connection with electroliers or fixtures carrying electric lamps, and to make and break the circuit of the fixture by opening and closing a connection between the separated ends of a wire which passes through the tubular arm of the fixture.

More especially, my object is to provide a simple and compact form of switch which can be made by the switch manufacturer and afterward readily and conveniently put into place upon the electrolier arm by those who make and install such fixtures.

The invention is illustrated in the accoming drawings, in which—

Figure 1 is a side elevation of my improved switching device with the inclosing shell in section; Fig. 2, an end view of the same; Fig. 3, a front view of the stationary portion of the switch; Fig. 4, a bottom view of the turning portion of the switch; Fig. 5, a side elevation and partial section of a modified arrangement; and Fig. 6, a side elevation illustrating a further modification.

Referring first to Figs. 1, 2, 3 and 4, A is a block of suitable insulating material, such as wood or fiber, which is in the form of a curved saddle adapted to be placed over and rest upon the circular tube B, which preferably is, as in Fig. 1, a section adapted to be interposed in the line of the electrolier arm. Upon one face of the saddle A is a curved metal contact plate *a*, which extends below the end of the saddle, and upon the opposite face is a similar contact plate *b*. As shown in Fig. 1, the piece of metal tubing B is provided with two apertures *c*. When the device is placed upon the fixture, the fixture arm, which is divided, is inserted in the sleeves *d* at the ends of the tube B, and one of the wires of the fixture arm passes continuously through the tube B, the other being broken and its ends brought out through the apertures *c*. Wire-end *e* is attached, as shown, by a suitable binding-screw to the plate *a*, and wire-end *e'* is similarly attached to the plate *b*. When the switch is in the position shown in Fig. 1, the circuit is closed between the spring ends of the plates *a*, *b* by the circuit-closing block *f*. The block *f* is of insulating material, but has upon it the bent metal plate *g*, which enters between the ends of the plates *a*, *b* to close the circuit, the block having thus two insulating sides and two metal sides. The block *f* is carried upon a spindle *h* and turned by means of the pin *i*, on said spindle, which lies in a slot in the said block. It will be seen that by turning the block *f* from the position shown in Fig. 1 to the position in which the insulating ends of the block come in contact with the plates *a*, *b*, the circuit is broken by a spring action. The spindle *i* passes through the tube B and through the upper portion of the saddle, and has a screw-threaded end upon which is screwed the ornamental nut *k*, which also serves to hold in place the covering shell *l*, which is made in two parts held together between the nut *k* and the handle *m* of the switch.

The device, as shown in Figs. 1 and 2, is intended to be constructed by the switch manufacturer and to be sold by him to makers and installers of electroliers, by whom it may be placed in position upon the fixtures as they make or install them.

Fig. 5 shows a construction of my device which is intended to be placed upon a continuous fixture arm without dividing it. The section of tubing B is omitted, and the saddle A is placed directly upon the arm of the fixture, the same being provided with holes *c*, *c* for the wires to pass through, and with holes for the spindle *h*.

In the form shown in Fig. 6, instead of using a tubular section B to support the switch, I make use simply of a casting C, having screw-threaded ends by which it may be screwed into the detached portions of the fixture, and having apertures bored in its ends and in its sides, so that the wires pass partly through it as shown, and both wires are brought out

at the switch. The dotted rectangle in Fig. 6 illustrates the position of the switch in this construction.

What I claim is—

1. The combination, with the tube, of the insulating saddle on said tube, the stationary contacts carried by said saddle, the spindle passing through the said saddle, and the movable contact-bearing part carried by said spindle, substantially as set forth.

2. A switch for electric light fixtures, having in combination a body of insulating material adapted to be seated upon the outside of a fixture arm, contact plates on opposite faces of said body and projecting beyond the same, and a movable contact-bearing piece between said contact plates and carried by a spindle, said spindle being adapted to pass through a fixture arm and the insulating body to secure the parts to such fixture arm, substantially as set forth.

3. The combination with the tube, of the insulating saddle thereon, a contact plate on each face of said saddle, apertures in said tube one on each side of said saddle, means for attachment of wires to said contact plates, and a movable contact piece, substantially as set forth.

4. The combination with the tube, of the insulating saddle on said tube, a contact plate on each face of said saddle and extending below the same, a turning spindle passing through said tube and said saddle, and a contact piece carried by said spindle between the ends of said contact plates, substantially as set forth.

This specification signed and witnessed this 12th day of June, 1893.

JOSEPH HUTCHINSON.

Witnesses:
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