

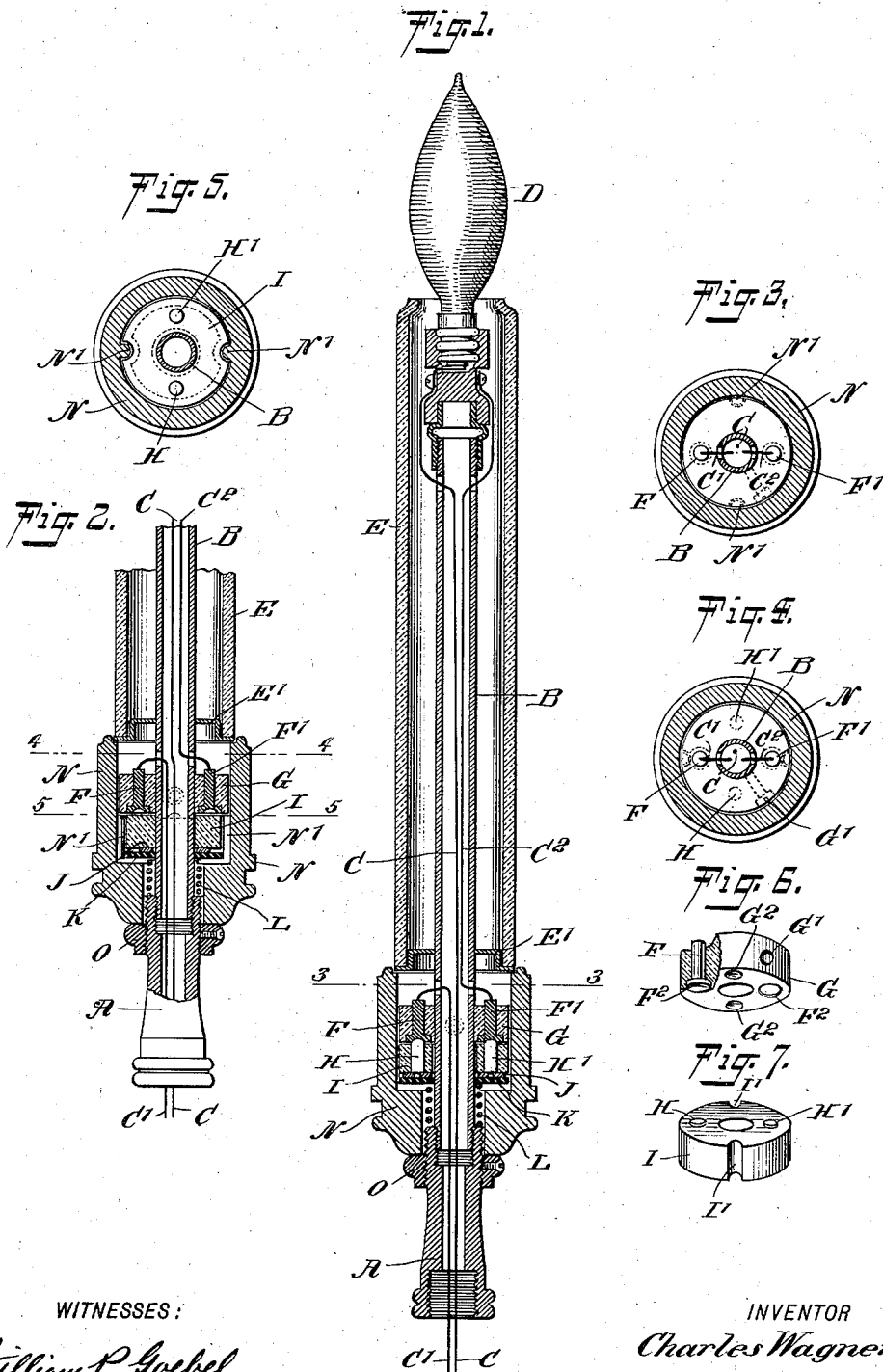
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Patented June 11, 1901.

C. WAGNER.
SWITCH FOR ELECTRIC LAMPS.

(Application filed Feb. 28, 1901.)

(No Model.)



WITNESSES:

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SWITCH FOR ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 676,289, dated June 11, 1901.

Application filed February 28, 1901. Serial No. 49,312. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WAGNER, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Switch for Electric Lamps, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved switch for electric lamps, arranged to permit the user to conveniently turn on or shut off the current and to give a very neat appearance to the lamp, especially when the device is applied to the candle type of electric lamps.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation of the improvement as applied and with the switch in a turned-on position. Fig. 2 is a similar view of the same with the switch in a shut-off position. Fig. 3 is a sectional plan view of the improvement on the line 3 3 in Fig. 1. Fig. 4 is a similar view of the same on the line 4 4 in Fig. 2. Fig. 5 is a like view of the same on the line 5 5 in Fig. 2. Fig. 6 is a perspective view with parts in section of the stationary contact-holder, and Fig. 7 is a perspective view of the turnable contact-holder.

A hollow support A is screwed or otherwise secured to a suitable bracket, base, or the like, and in this support is secured a tube B, through which extend the wires C C' C², of which the wires C C' are connected with the source of electricity supply and the wires C C² connect in the usual manner with the electric lamp D, secured to the upper end of an imitation candle E, supported at its lower end on a ring E', carried by the central stationary tube B. The wire C extends directly through the support A and tube to the lamp, while the upper end of the wire C' and the lower end of the wire C² extend through openings in the tube B to connect with contact-

pins F F', secured in a contact-holder G, made in the form of a disk, of an insulating material, such as porcelain. The contact-holder G is secured by a set-screw G' to the tube B, and said contact-pins are formed at their lower ends with heads F², having recesses for engagement by the upper ends of contact-pins H H', held in a contact-holder I, likewise made in the form of a disk and of porcelain, but mounted to turn loosely on the tube B. The lower ends of the contact-pins H H' in the movable contact-holder I rest on a metal ring J, pressed on by a washer K, of hard rubber or other insulating material, the washer being pressed upward against the ring J by a spring L, the lower end of which is seated on the upper end of the support A. The contact-holder I is formed in its periphery with recesses I', engaged by lugs or projections N', formed on the inside of a sleeve N, mounted to turn loosely on the upper end of the hollow support A, the lower end of said sleeve resting on a suitable collar O, secured by a set-screw or other means on the support A. The upper end of the sleeve N engages the lower end of the imitation candle E, and the sleeve N completely incloses the contact-holders G and I, as well as the metal ring J, the washer K, and the spring L, so that said parts are not visible from the outside and are not liable to be clogged by dust and other impurities. The under side of the contact-holder G is also provided with recesses G², spaced from the heads F² of the contact-pins F F', adapted to be engaged by the upper projecting ends of the contact-pins H H' when a quarter-turn is given to the holder I upon turning the sleeve N to the position shown in Figs. 2, 4, and 5.

It is understood that when the sleeve N is turned the contact-holder I turns with it, and when the sleeve is in the position shown in Figs. 1 and 3 then the contact-holder I has its contact-pins H H' in register with the heads F² of the contact-pins F F', and as the said pins H H' are connected with each other by the metal ring J it is evident that the switch is now in a turned-on position and the current passes through the wire C', the pins F and H, the metal ring J, the pins H' F' to the wire C² and to the lamp D. When a quarter-

turn is given in either direction to the sleeve N, then the contact-pins H H' move out of engagement with the heads F² of the contact-pins F F' and move in engagement with the recesses G² of the insulating-disk G, so that the switch is in a turned-off position, and consequently the electric current is broken and the light of the lamp D is extinguished. By mounting the contact-holder I yielding, as described, it is evident that the projecting rounded-off upper ends of the contact-pins H H' readily engage the recesses in the heads F² of the contact-pins F F' or the recesses G² in the insulating-disk G.

By the arrangement described the unsightly key heretofore used in electric switches is completely dispensed with, and the sleeve N, used for turning the switch into an open or closed position, not only incloses the working parts, but also gives a very neat appearance to the entire lamp.

It is expressly understood that it does not matter in which direction the sleeve is turned to make or break the circuit.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A switch for electric lamps, comprising a stationary tube for the lamp-wires, a contact-holder of insulating material and secured to the tube, spaced contact-pins in said holder and connected at one end with the electric wires, a second contact-holder of insulating material and mounted to turn on the tube, contact-pins yieldingly mounted in said second contact-holder and adapted to move in and out of engagement with said contact-pins in the stationary holder, and a sleeve mounted to turn and carrying said movable contact-holder, as set forth.

2. A switch for electric lamps, comprising a stationary tube for the lamp-wires, a contact-holder of insulating material secured to the tube, spaced contact-pins in said holder and connected at one end with the electric wires, a second contact-holder of insulating material and mounted to turn on the tube, contact-pins yieldingly mounted in said second contact-holder and adapted to move in and out of engagement with said contact-pins in the stationary holder, and a sleeve mounted to turn and carrying said movable contact-holder, the sleeve inclosing both contact-holders, as set forth.

3. A switch for electric lamps, comprising a stationary tube for the lamp-wires, a contact-holder of insulating material secured to

the tube, spaced contact-pins in said holder and connected at one end with the electric wires, a second contact-holder of insulating material and mounted to turn on the tube, contact-pins yieldingly mounted in said second contact-holder and adapted to move in and out of engagement with said contact-pins in the stationary holder, a sleeve mounted to turn and carrying said movable contact-holder, a metallic ring for electrically connecting the contact-pins in the movable holder, and a spring-pressed washer pressing said ring, to hold the latter in engagement with its contact-pins, as set forth.

4. A switch for electric lamps, comprising a stationary disk of insulating material and containing spaced contact-pins having recessed lower ends, a revoluble disk of insulating material and having spaced contact-pins loosely mounted therein and adapted to enter the recessed ends of the pins of the stationary disk, a ring below the revoluble disk and upon which the lower ends of the pins thereof rest, and a spring-pressed washer of insulating material below the ring, as set forth.

5. A switch for electric lamps, comprising a stationary disk of insulating material and containing spaced contact-pins, and a second disk of insulating material mounted to turn and having spaced contact-pins adapted to move in or out of register with the contact-pins on the stationary disk upon turning the movable disk, said stationary disk having recesses spaced from the stationary-disk contact-pins, the recesses being adapted to be engaged by the contact-pins on the turnable disk, as set forth.

6. A switch for electric lamps, comprising a stationary contact-holder having spaced contacts, a movable contact-holder having spaced contacts, and a revoluble sleeve carrying the movable contact-holder, as set forth.

7. A switch for electric lamps, comprising a stationary disk containing spaced contacts, a second disk mounted to turn and having spaced contacts, and a revoluble sleeve connected with the second disk and inclosing both of the said disks, as set forth.

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

CHARLES WAGNER.

Witnesses:

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R. MEYER,
STEWART L. SAMSON.