J. L. MOORE & J. F. ALEXANDER.

MEANS FOR OPERATING INCANDESCENT LAMP SWITCHES.

APPLICATION FILED MAR. 8, 1910.

1,004,182. Patented Sept. 26, 1911.

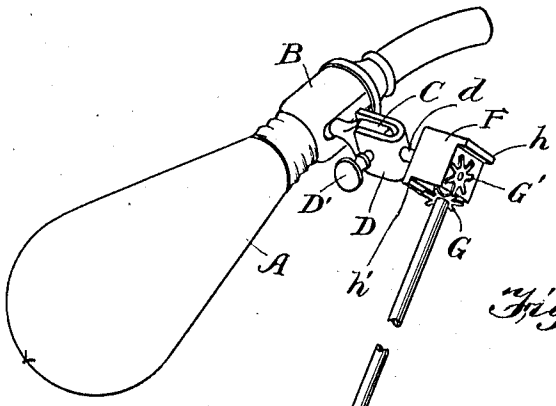
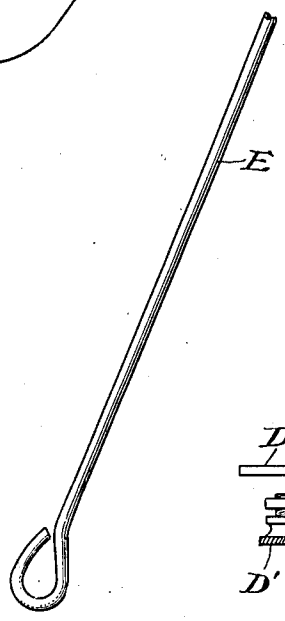


Fig. 1.



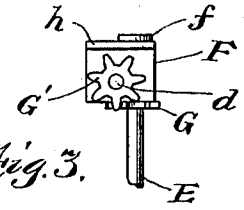


Fig. 3.

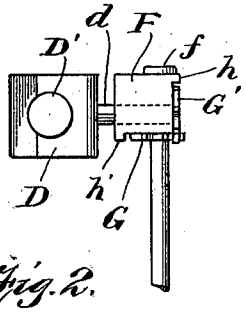


Fig. 2.

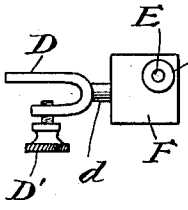
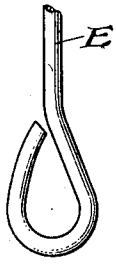


Fig. 4.



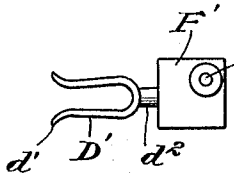


Fig. 5.

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UNITED STATES PATENT OFFICE.

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MEANS FOR OPERATING INCANDESCENT-LAMP SWITCHES.

1,004,182. Specification of Letters Patent. Patented Sept. 26, 1911.

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To all whom it may concern:

Be it known that we, JOHN L. MOORE and JOHN F. ALEXANDER, citizens of the United States, both residing in the city of New York, borough of Manhattan, county and State of New York, have invented certain new and useful Means for Operating Incandescent-Lamp Switches, of which the following is a specification.

This invention is a device for operating the switches of incandescent lamps, for the purpose of turning on or off the current, when the lamps are so positioned that switches cannot be reached for hand operation. As is well known, many incandescent lamps are located so high that they cannot be reached for operation by a person standing on a floor, thereby rendering necessary the employment of a chair or equivalent means by the operator in order to reach the switches on the lamps. This occasions inconvenience and delay, and frequently leads to accidents.

The present invention overcomes the foregoing, and other, disadvantages, and enables switches of the character under consideration to be easily and expeditiously operated by a person standing on the floor.

Broadly stated, the invention embodies means adapted to be temporarily or permanently positioned on the handles of an incandescent lamp switch, and means cooperating therewith whereby the switch engaging member may be rotated to turn the switch so as to turn the current on or off.

In a preferred form of the invention, a clamp is permanently secured to the handle of the switch, said clamp having a stem extending therefrom and mounted to turn in a supporting block, said stem having fixedly secured at its end a gear, and an operating rod one end of which is also mounted in the supporting block, said rod being provided with a pinion meshing with the gear on the stem, whereby, when the rod is turned, it imparts a rotary motion to the clamp, thus turning the switch.

In the accompanying drawings we have illustrated different practical embodiments of the invention, but the constructions shown therein are to be understood as illustrative, only, and not as defining the limits of the invention.

Figure 1 is a perspective view illustrating our device applied to the handle of a switch for an incandescent electric lamp. Fig. 2 is a side elevation of the device removed from the lamp switch. Fig. 3 is an elevation at right angles to Fig. 2. Fig. 4 is a plan view, and Fig. 5 shows another embodiment of the invention adapted to be readily connected to, and removed from, an overhead incandescent lamp.

Referring more particularly to Fig. 1, A designates the bulb of an incandescent lamp attached to a socket, B, the latter having a switch of any suitable character, the handle of said switch being indicated by C. All these parts are usual in the art and they are referred to herein merely to exemplify the invention.

Our device consists of a clamp, D, an operating rod, E, and a carrier member in the form of a block, F. The carrier block is provided with two openings extending therethrough at a right angle to each other. In one opening is journaled an end portion of operating rod, E, the latter being provided with a washer, *f*, and a gear, G, whereby the operating rod is retained in the carrier block against endwise movement while at the same time said operating rod is free to turn on its longitudinal axis for the purpose of rotating gear, G. Clamp, D, is substantially U-shaped, and it is provided with a stem, *d*, which extends through one opening of carrier block, F. The stem of said clamp is provided with a gear, G′, the teeth of which mesh with gear, G, on the operating rod, whereby the operating rod and the stem of the clamp are operatively connected so that rotation of the rod turns the clamp.

In the embodiment of the invention shown in Figs. 1 to 4, inclusive, clamp, D, is composed of rigid material, such as metal, and one jaw of the clamp is provided with a binding screw, D′.

As shown, carrier block, F, is provided with two flanges, *h*, *h*′, on the sides where the gears, G, G′, are positioned, said flanges serving the purposes of shields for the teeth of the gears.

In using our device, the yoke shaped clamp is fitted over the handle of switch, C, and binding screw, D′, is tightened against the switch handle, whereby the clamp is firmly attached to the lamp switch. The device is supported on, and remains attached to, the lamp switch, and operating rod, E, extends downwardly from the lamp, said operating rod being of such length that its

lower end can easily be reached by a person standing on the floor. When it is desired to turn on the current and light the lamp, the operator grasps rod, E, and rotates it, whereby gear, G, operates gear, G′, to turn stem, *d*, and clamp, D, thus operating the switch to admit the current to the lamp. At a desired time rod, E, should again be operated to turn the clamp and the switch for the purpose of cutting off the current from the lamp.

While we have shown and described a device adapted to remain attached to the lamp switch, it is to be understood that our invention is not strictly confined to a device of this type, for the reason that the rotatable clamp may be composed of resilient material for the purpose of fitting it easily to, or removing it from, a lamp switch. In Fig. 5 of the drawings we have shown a spring clamp, D′, having jaws of equal length and flared at their outer ends, as at *d′*, said clamp having a stem, d^2, which is rotatably mounted in carrier block, F′, the latter having an end portion of an operating rod, E′, journaled therein. The stem of clamp, D′, and the operating rod, E′, should be provided with gears similar to the gears, G, G′, of Figs. 1, 2, and 3, thus operatively connecting rod, E′, with spring clamp, D′.

When using the device of Fig. 5, the spring clamp is adjusted upon the handle of a lamp switch, the jaws of the clamp yielding during its application to the switch handle, but when the clamp is in operative position the spring jaws engage frictionally with the switch handle so as to retain the spring clamp in position upon the switch. To turn the switch, it is only necessary for the operator to rotate rod, E′, whereupon clamp, D′, is rotated to turn the switch for the purpose of admitting current to, or shutting off current from, the lamp.

While we have shown and described the invention as especially adapted for the switches of incandescent lamps, it will be understood that our invention may be used in other arts and different relations, as for example, as a means for operating the stop cocks of gas pipes, etc.

Having thus fully described the invention, what we claim as new, and desire to secure by Letters Patent is:

1. In a device for operating incandescent lamp switch keys, a carrier block, a clamp positioned on one side of said carrier block and adapted to be attached to the switch key to be operated, a stem projecting from the clamp and rotatably supported in the carrier block, a gear secured to said stem, a single operating rod rotatably supported in the carrier block, and a gear secured to the rod and meshing with the gear of the stem, said clamp operating to attach the entire device fixedly to the switch key, whereby said device will remain in an applied position to the switch key.

2. In a device for operating incandescent lamp switch keys, a carrier block provided on one face with an outwardly projecting flange and on another face with a depending flange, a clamp provided with a stem, said stem being journaled in the block and projecting through that face thereof which is provided with the outwardly projecting flange, a gear secured to the stem and positioned adjacent to the flange, a rod rotatably mounted in the carrier block, and a gear secured to the rod and positioned within the depending flange of the carrier block, said gears meshing with each other and adapted, by a rotative movement of the rod, to turn the clamp and the switch key.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOHN L. MOORE.
JOHN F. ALEXANDER.

Witnesses:
JAS. H. GRIFFIN,
H. I. BERNHARD.