J. G. SWALLOW.

ELECTRICAL CEILING SWITCH.

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UNITED STATES PATENT OFFICE.

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ELECTRICAL CEILING-SWITCH.


To all whom it may concern:

Be it known that I, Joseph G. Swallow, a citizen of the United States of America, residing in the borough of Brooklyn, city of

New York, county of Kings, State of New York, have invented an Improved Electrical Ceiling-Switch, of which the following is a specification.

My invention relates to ceiling-switches, and particularly that style which comprises a regular rotary snap-switch fastened to a frame secured beyond ordinary reach and adapted to be operated by pulling a chain.

The object of the invention is to construct a simple inexpensive device that is not liable to get out of order or wear out with constant use.

In the drawings, Figure 1 represents a front elevation of my device. Fig. 2 is a side elevation of the same. Fig. 3 is a view, on a large scale, of the gravity-pawl and ratchet mechanism; and Fig. 4 is a separate view of the three-arm lever.

In the drawings, A represents the rotary snap-switch proper, which may be of any suitable construction, with its operating-shaft a horizontal and extending centrally through the same and also through the frame B, on which the switch is mounted as a convenient means for securing the same to the ceiling. On the shaft a is mounted free to turn the three-arm lever C, to one end e of which the operating chain or cord K is attached. At the opposite end w the weight W is secured, which tends to keep the lever in the position shown by full lines in Fig. 1. At the central portion of this lever is a third arm e, normally above the shaft a. On this arm is a hollow cylindrical body D, open at its lower end and in which is housed a loose pin d, which acts as a gravity-pawl to engage one of the notches in the ratchet-wheel E. This wheel is firmly secured on the shaft a and turns therewith, being secured by any suitable means, such as a set-screw e,

passing through the collar e'. From this description the operation will be obvious. Suppose the switch, as shown in Fig. 1, to be "on," then by pulling the cord K the lever C will be turned to the position shown by dotted lines, thereby turning the arm e' to the left and raising the weight W. The pawl e, engaging a notch in the ratchet E turns the shaft a, thereby turning the internal switch to break the circuit. As soon as the cord is released the weight W will bring the lever back to the position shown by full lines in Fig. 1, with the pawl D back to its normal vertical position, where it engages the next notch in the wheel E and is again ready for use.

I claim as my invention—

1. A rotary snap-switch, having an operating-shaft and a frame for supporting the switch, said shaft passing through the switch-operating mechanism and frame, in combination with a ratchet-wheel and a three-armed lever on the rear end of said shaft, a gravity-pawl on one of said arms to engage the ratchet-wheel, a weight on another arm for returning the pawl to its normal position, and means connected with the third arm for operating the switch independently of the usual switch-operating mechanism.

2. A rotary snap-switch, a frame for supporting said switch and shaft of said switch in a horizontal plane in combination with a ratchet-wheel on the shaft, a three-armed lever loose on the said shaft, a gravity-pawl consisting of a cylinder, mounted on one of said arms, a pin free to move therein, means on another of said arms for moving said lever, and a weight to return said pawl and lever to its normal position on the third arm.

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

Witnesses:—

JOSEPH G. SWALLOW.

I. E. SCANLAN,
L. A. COLEMAN.