

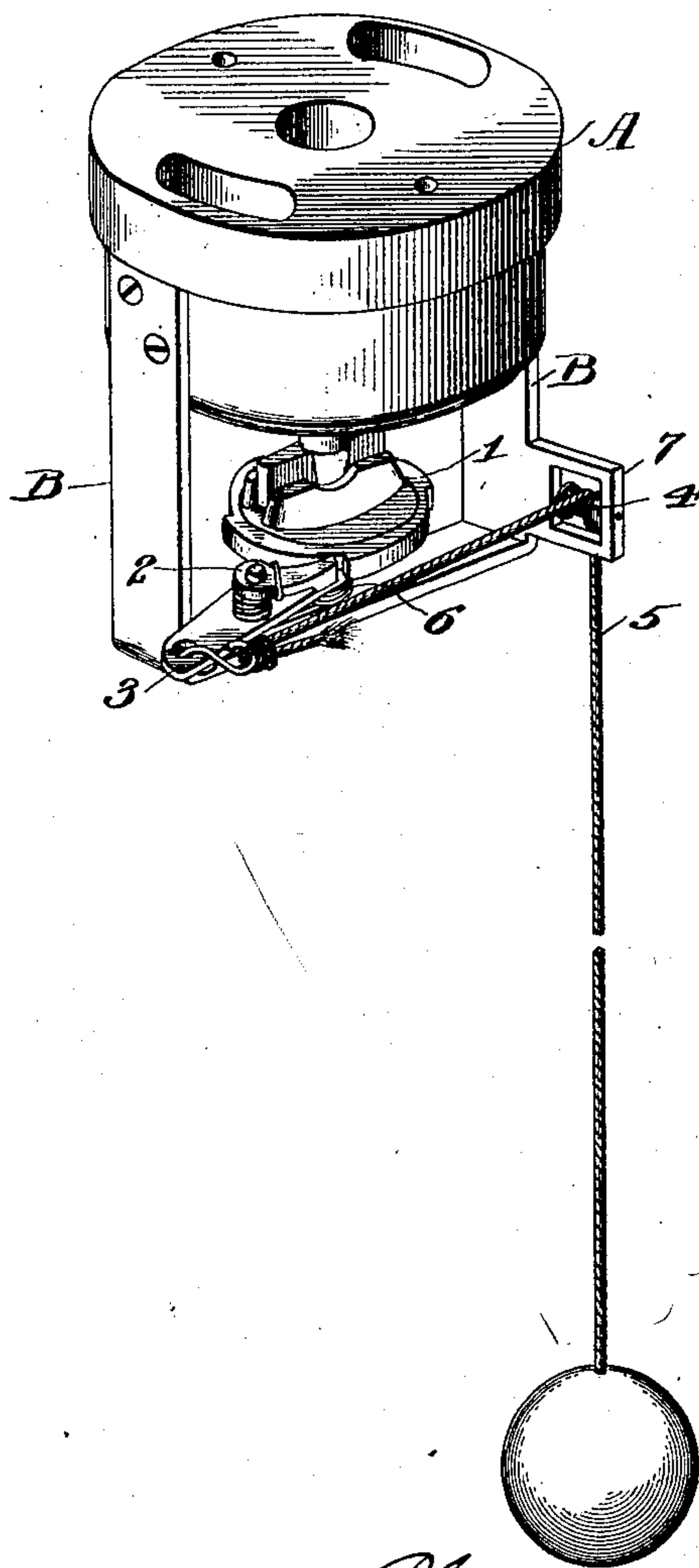
No. 732,695.

PATENTED JULY 7, 1903.

C. F. AUTENRIETH.  
ELECTRIC SWITCH.

APPLICATION FILED AUG. 2, 1902.

NO MODEL.



Inventor

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Witnesses

Howard W. Wadsworth

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## UNITED STATES PATENT OFFICE.

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## ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 732,695, dated July 7, 1903.

Application filed August 2, 1902. Serial No. 118,176. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES FRED. AUTENRIETH, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Electric Switches, of which the following is a specification.

My invention relates to an improvement in electric switches; and the primary object of this invention is to provide a ceiling-switch for electric lights which is adapted to be located close to the chandelier, where it will be accessible from the floor in turning the lights on and off, and it is my purpose to provide a simple, neat, attractive, and compactly-arranged device for the accomplishment of the object set forth; and with this object in view my invention consists in a snap-switch attached directly to the wire molding on the ceiling in connection with operating mechanism for controlling the switch from the floor, which novel features will be hereinafter described, and pointed out in the claims.

The accompanying drawing is a view in perspective of my improved switch.

A represents an ordinary form of snap-switch which is adapted to be secured directly to the molding or ceiling adjacent to the chandelier. In addition to the usual button for operating the switch a toothed wheel 1 is employed, and this preferably has several teeth—for instance, four—and these teeth are adapted to be engaged by a spring-actuated dog 2, carried upon the plate 3, and this dog is adapted to ride over the teeth in one direction and to engage them in the other. The plate 3, which carries the dog, is loosely mounted concentric with the switch-spindle, and this forms a lever by which the switch is operated.

A frame B is secured to the casing of the switch, as indicated, and extends down around the parts described, partially inclosing them, and in this frame a pulley 4 is journaled. A cord or equivalent 5, secured at one end to the plate 3, extends therefrom horizontally in the same plane with the plate and thence over the pulley, which latter is disposed horizontally in the frame B, and then down in the form of a pendant within reach of the person operating the lights. Plate 3 is spring-actuated, the spring 6 extending therefrom to some convenient point on the frame, its func-

tion being to return and retain the plate in its normal position against the frame, which is the position shown in the drawing. This position is assumed when the cord or connection is slackened or released. A projection 7, which constitutes a stop at the opposite end of the frame, limits the movement of the actuating plate or lever 3 in the opposite direction when the cord is pulled down to operate the switch.

In operation to either light or extinguish the lights the operator merely pulls down on the chain or cord, swinging the lever as far as the stop will permit. This operates the switch, and by releasing the chain or cord the lever swings back to its normal position, the spring-actuated dog taking a new position against another tooth on the toothed wheel in readiness so that another pull upon the chain or cord will turn on or off the current, as the case may be. In other words, my invention consists in simple mechanism for operating an electric snap-switch located at a point beyond the reach of the operator. A desideratum is to dispense with the unsightly moldings in which the wires are ordinarily placed, being carried along the ceiling and thence down a side of a room, and at the same time provide a small and compact device with none of the objections to others heretofore employed and universally objected to by underwriters.

I am aware that the broad idea of placing a switch upon the ceiling and operating it by a chain or cord is not new and that the so-called "snap-switch" has been adapted to this purpose; but, so far as I am aware, never before has a snap-switch been constructed and adapted for attachment direct to the molding located on the ceiling and which carries the wire. By thus locating it directly upon the molding the parts necessary are reduced to a minimum, and, furthermore, the entire device occupies less space, as the improved mechanism necessary in my invention is all inclosed within the small rigid U-shaped frame B, which is attached directly to the shell of the snap-switch. This device is applicable to switches of different sizes and both for single and double pole.

Of course slight changes might be made in the several parts described without depart-



ing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction herein set forth; but,

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

1. The combination with a snap-switch, of a U-shaped frame secured directly to the metal casing thereof, a pulley supported by said frame, a lever carrying a spring-actuated dog for operating the switch and a flexible connection extending from the lever horizontally over the pulley on the U-shaped frame and downwardly within reach of an operator for controlling the switch.

2. A snap-switch adapted to be applied directly to a molding or ceiling, a frame secured to the metal casing of the switch rigidly, and means connected with the switch-spindle and guided by the frame for controlling the switch.

3. A snap-switch comprising a casing, a frame rigidly secured thereto, spring-actuated mechanism within the frame for operating

the switch, and a flexible connection for operating the spring-actuated mechanism.

4. The combination with a snap-switch, of a U-shaped frame rigidly secured at its ends to the metal shell of the switch parallel with the spindle thereof, and mechanism concentric with the spindle, inclosed within the frame and guided thereby for controlling the switch.

5. The combination with a snap-switch, of a U-shaped frame secured at its ends to the metal casing of the switch, a pulley journaled in the frame, and a flexible connection extending from the switch, over the pulley to a point within reach of an operator standing upon the floor.

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

CHARLES FRED. AUTENRIETH.

Witnesses:

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