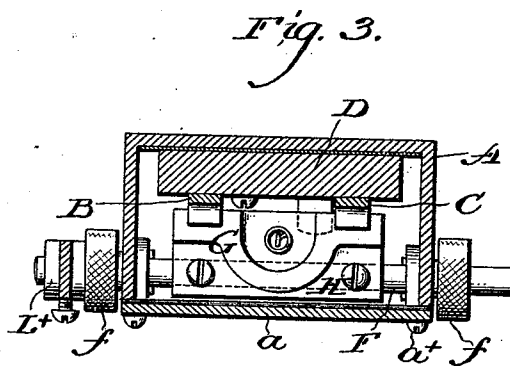
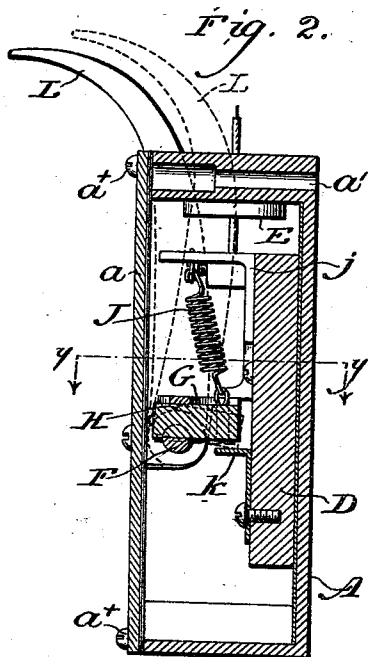
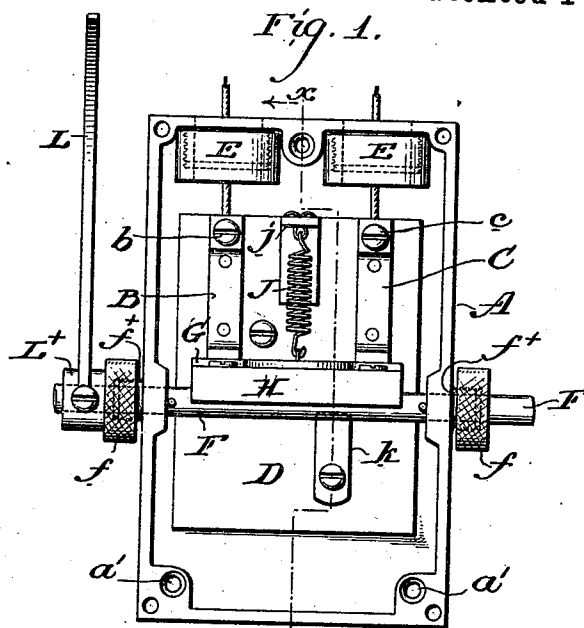


(No Model.)

E. J. McEVoy.
CIRCUIT CONTROLLER.

No. 514,019.

Patented Feb. 6, 1894.



WITNESSES:
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UNITED STATES PATENT OFFICE.

EDWARD J. McEVOY, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO THE WILLIAM CRAMP & SONS' SHIP AND ENGINE BUILDING COMPANY, OF PHILADELPHIA, PENNSYLVANIA.

CIRCUIT-CONTROLLER.

SPECIFICATION forming part of Letters Patent No. 514,019, dated February 6, 1894.

Application filed August 31, 1893. Serial No. 484,438. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. McEVOY, a citizen of the United States, residing in the city and county of New York, in the State of New York, have invented certain new and useful Improvements in Circuit-Controllers, of which the following is a specification.

My invention relates to a class of devices designed to be included within an electric circuit and adapted to be operated to occasion the opening or closing of said circuit at will.

It is the object of my invention to provide a circuit controller of a simple, durable, inexpensive, and efficient character, and, furthermore, to provide in connection with said circuit controller, devices through the interposition of which said controller may be automatically operated to open or close the circuit upon the opening or closing of a door, window, or the like, in adjacency to which the circuit controller may be situated.

My improved device is of convenience and utility when employed in connection with the line wires of an electric light situated within an apartment, and so mounted in connection with the door of said apartment that upon the opening of said door the circuit will be automatically closed and the lights energized, and, upon the closing of said door the circuit will be automatically opened for the extinguishment of the lights. My device is, however, of especial convenience and utility, when employed in connection with apartments such as store rooms and the like where explosive or highly combustible articles are stored and in which the extinguishment of the lights when no person is in the apartment is particularly desirable as a precaution against explosions or conflagrations.

In the drawings I show, and herein I describe, a preferred form of a good embodiment of my invention, the particular subject-matter claimed as novel being hereinafter definitely specified.

In the drawings, Figure 1 is a view in face elevation of my improved circuit controller, the cover of the casing being supposed removed to exhibit the form and arrangement of the contained devices. Fig. 2 is a central, vertical, sectional, elevation of the said circuit

controller, showing the lid in place, section being supposed upon the dotted line $x-x$ of Fig. 1, and sight being taken in the direction of the arrows upon said line. Fig. 3 is a transverse, central, sectional, view, section being supposed upon the line $y-y$ of Fig. 2.

Similar letters of reference indicate corresponding parts.

In the drawings, A indicates the casing of the circuit controller, shown as consisting of a rectangular box, provided with a lid a secured in place thereon in any preferred manner, as for example by the screws a^x . The body of the casing is well made when of the form shown in the drawings, in which it is illustrated as formed as a single integral casting, provided as to its wall with beads or portions of extra thickness in which are formed counter-sunk holes a' for the reception of screws by which the casing may be secured to any desired support, such for example as a door jamb.

The line wires of the electric circuit in which the controller is placed are to be conducted through openings in one end of the casing, into, and placed in circuit with, binding posts $b c$, which form parts of terminals B C, mounted upon a block of insulating material D secured in position upon the floor of the casing.

Collars E are applied to the inner face of the end wall of the casing through openings in which the wires extend, and respectively concentric with said openings, which collars serve to support suitable packing material around the wires to prevent the entrance of moisture.

The terminals B C consist of a pair of counterpart plates secured in parallelism with each other, upon the surface of the insulating block D, in the outer ends of which the respective binding posts $b c$ hereinbefore mentioned are respectively mounted, and the inner ends of which plates extend inward to a point in adjacency to the longitudinal center of the casing.

F is a rotatable shaft extending transversely with respect to the casing, and extending as to its respective extremities through openings formed in the side walls of the said cas-

ing, said openings being shown as extending through externally screw-threaded bosses f^x formed upon the exterior of the box or casing. Nuts f are mounted upon and closely embrace the extremities of the shaft F, and are provided with threaded counter-sinks, by virtue of which they are adapted to be screwed upon the threaded bosses f^x and to bear against the exterior wall of the casing so as to exclude the entrance of moisture. In the drawings said nuts are, to exhibit construction, shown as in intermediate positions, that is, not screwed home.

G is a yoke of conducting material mounted upon the shaft F, the respective extremities of which yoke are adapted to be carried into contact with the inner extremities of the respective terminals. In the drawings, (the said shaft being supposed formed, as it may in fact be most conveniently formed, of conducting material) the said yoke is shown as secured to the shaft through the interposition of a block of insulating material H, to which the yoke is secured by screws, and which block H is in turn secured by screws to the said shaft.

As will be understood, upon the slight rotation of the shaft F in one direction (to the right, Fig. 2) the yoke will be carried out of contact with the terminals and the circuit thereby opened, while, on the other hand, upon slight rotation of the shaft F in the opposite direction the yoke will be carried into contact with the terminals and the circuit thereby closed.

J is a spiral pull spring, which is shown as secured as to one end to the block H, and as to the other to a small anchor plate j mounted upon the block D, the operation of which spring is of course to draw the block H constantly toward the said anchor plate and therefore to hold the yoke G normally in contact with the terminals B C.

k is a stop plate mounted upon the block D to the rear of the shaft F, and adapted to limit the movement of the block H and yoke G away from the terminals B C.

L is a trip arm of any preferred character secured by means of a collar L^x upon one extremity of the shaft F, and this trip is to be of such form and arrangement as the surroundings within which the circuit controller is placed and the character and construction, and direction of movement, of the door or window by which it is to be tripped, may dictate.

As will be readily understood, when the arrangement of the trip arm is that shown in

the drawings, in which the normal position of the arm is that illustrated in full lines in Fig. 2, and the thrown position of the arm that shown in dotted lines in said figure,—when the device is to be mounted in such location as to be operated by the opening and closing of a door, it is to be secured in such position upon the door jamb that the arm will be encountered by the door just as the latter is nearly closed and carried by the door in the movement of the same to its closed position, into the position shown in dotted lines in Fig. 2, so that so long as the door remains closed said arm will be retained in the position shown in said dotted lines, and the circuit consequently open. So soon, however, as the door is opened, it travels away from said arm, whereupon the tension of the spring J draws the yoke G into contact with the terminals to close the circuit, and throws the arm L forward into the position shown in full lines in Fig. 2.

Having thus described my invention, I claim—

1. The combination to form a circuit controller, of a box or casing, a pair of terminals provided with binding posts, a rotatable shaft mounted in said box or casing, a block of insulating material mounted upon said shaft, a yoke of conducting material mounted upon the said block, and a spiral spring secured to said block of insulating material and to a suitable point of fixed attachment within the casing, the operation of which spring is to hold the yoke in contact with the terminals, substantially as set forth.

2. The combination to form a circuit controller, of a box or casing, a pair of terminals provided with binding posts, a rotatable shaft mounted in said box or casing, a block of insulating material mounted upon said shaft, a yoke of conducting material mounted upon the said block, and a spiral spring secured to said block of insulating material and to a suitable point of fixed attachment within the casing, the operation of which spring is to hold the yoke in contact with the terminals, and a trip arm mounted upon the extremity of said shaft exterior to the box or casing, substantially as set forth.

In testimony that I claim the foregoing as my invention I have hereunto signed my name this 30th day of August, A. D. 1893.

EDWARD J. MCEVOY.

In presence of—

F. NORMAN DIXON,
JAS. LOUGHRAN.