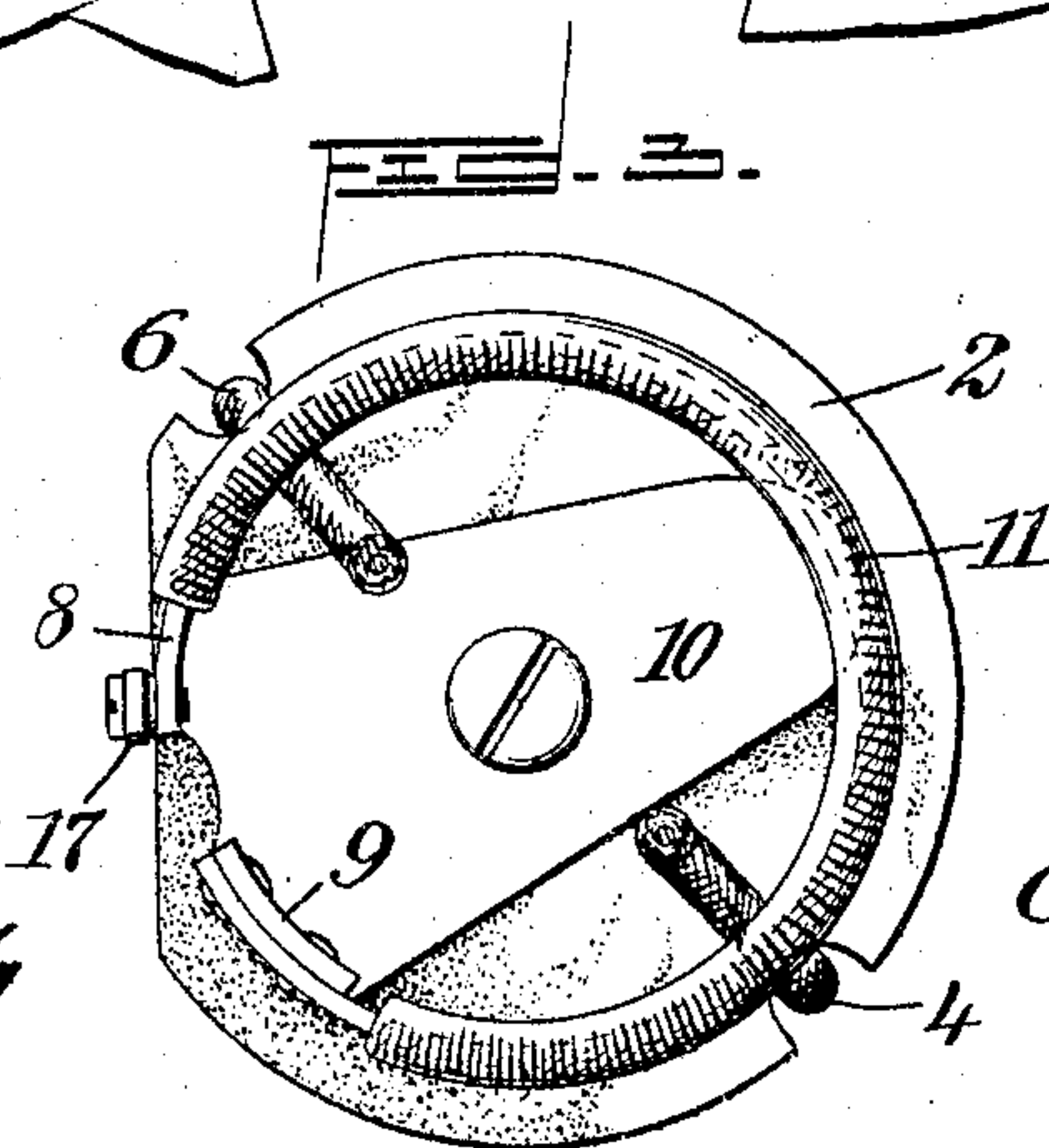
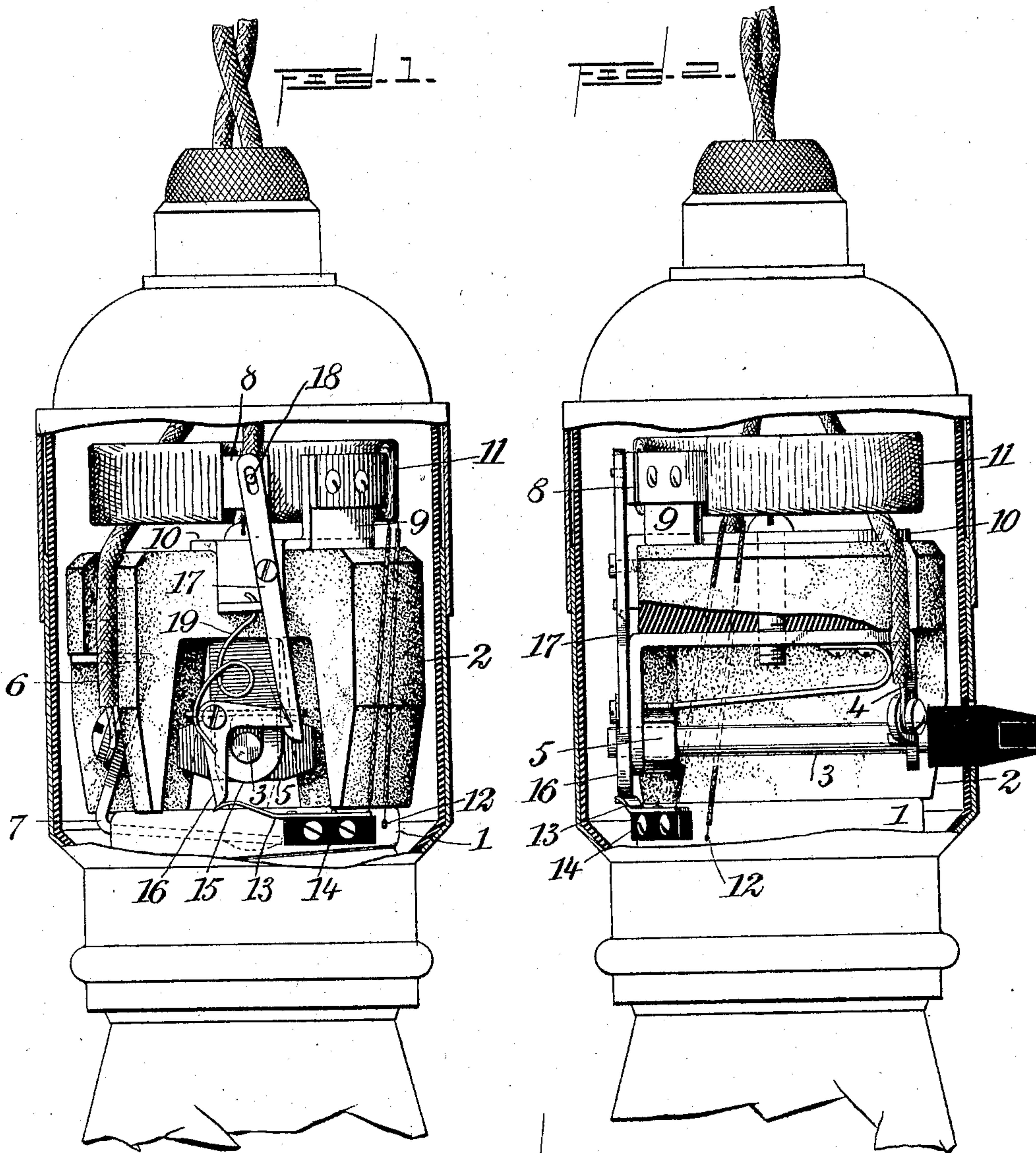


No. 795,558.

PATENTED JULY 25, 1905.

C. W. SNYDER.  
CUT-OUT.

APPLICATION FILED NOV. 16, 1904.



WITNESSES:

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BY

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# UNITED STATES PATENT OFFICE.

CHARLES W. SNYDER, OF HUDSON, NEW YORK.

## CUT-OUT.

No. 795,558.

Specification of Letters Patent.

Patented July 25, 1905.

Application filed November 15, 1904. Serial No. 232,892.

*To all whom it may concern:*

Be it known that I, CHARLES W. SNYDER, a citizen of the United States, and a resident of Hudson, in the county of Columbia and State of New York, have invented a new and Improved Cut-Out, of which the following is a full, clear, and exact description.

This invention relates to improvements in cut-outs for lights and other electrical devices, the object being to provide means for automatically breaking the circuit through the light some time after an element of the cut-out has been manually operated, or, in other words, to permit the burning of a dim light for a predetermined time after turning the key to break the direct current from the main circuit through the filament.

I will describe one embodiment of my invention as applied to an incandescent-lamp socket and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 shows in elevation a lamp-socket to which my invention is applied. Fig. 2 is an elevation, partly in section, at right angles to Fig. 1; and Fig. 3 is a plan.

Referring to the drawings, 1 designates the usual socket member for receiving the threaded end of the lamp, and on this socket member is a head 2, of insulating material, in which the key 3 operates, this key being in electrical connection with one of the lead or main wires 4 and having at one end a contact 5 for engaging with the socket member 1. The other main wire 6 is in electrical connection with the contact-plate 7 for engaging with the center of the lamp in the ordinary manner.

Mounted on the head 2 is a thermostat, here shown in the form of a metal ring 8 open at one side. One end of this ring is attached to an upwardly-extended portion 9 of a plate 10, secured to the upper side of the head 2.

Arranged on the thermostat 8 is a shunt-winding 11, one end of which connects with the socket member 1, as indicated at 12, and the other end is in connection with a spring-contact 13, mounted on a block 14, of insulating material, secured to the socket 1. The end of the key 3 extends through and has a bearing in an opening formed in a metal plate 15, the said opening being slightly elongated so that the key may have an upward movement when the contact 5 is turned into engage-

ment with the socket 1, for a purpose which will be hereinafter described.

Mounted to swing on the plate 15 is a switch member 16, which is here shown in the form of an angle-lever, the downwardly-extended portion of which is designed to close a circuit through the contact 13 and thence through the shunt. The horizontally-disposed portion of the switch member 16 is designed to be engaged by the hook end of a latch-plate 17, pivoted to the plate 10, and the upper end of this latch 17 is provided with a slot receiving a pin 18, extended from the end of the ring 8. When the switch member 16 is released from the latch, it is swung out of contact with the part 13 by means of a spring 19, connected at one end to said switch member and at the other end to the plate 10, or, as clearly shown in Fig. 1, to a downward extension of said plate.

In the operation, assuming the direct current to the filament to be turned off by placing the contact 5 in the position indicated in the drawings, the current will be shunted through the key 3, the switch member 16, the contact 13, thence through the shunt-coil and back to the socket member 1 through the filament, and then from the contact 7 through the wire 6 and to the line. The shunted current will in a short time heat the ring 8, causing it to expand, and the expansion will swing the latch 17 out of engagement with the switch member 16, whereby the spring 19 will swing said switch member out of engagement with the contact 13, thus cutting out the current. When the key is turned to again close the current through the lamp filament, the contact 5 by coming in engagement with the upper end of the socket 1 will move the end of the key 3 upward and during its upward movement it will engage with the horizontally-disposed member of the switch 16 and swing the vertically-disposed member thereof again into contact with the plate 13. At this time the main current passes through the contact 5, very little, if any, passing into the shunt.

Though my invention has been described as associated with an incandescent-light socket, it will be obvious that it may be used in connection with many forms of electrical devices.

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

1. The combination with an electric lamp, of a shunt arranged in the main circuit, and means for causing a current through the shunt and lamp filament for a predetermined time



after cutting out the current to the filament directly from the main circuit.

2. In an electric cut-out, a key operating therein and arranged in the main circuit, a contact arranged in the main circuit, a switch, a shunt-circuit and a thermostat arranged in the shunt-circuit for controlling said switch.

3. The combination with an electrical device, of a main circuit, a key arranged in the main circuit, a contact arranged in the main circuit, a contact-plate arranged on the device but insulated therefrom, a thermostat, a shunt-winding thereon, one terminal of the winding being connected to said contact-plate and the other terminal connected to the device, a switch member for engaging with said contact-plate, and a latch for engaging with said switch member and having a connection with the thermostat.

4. An electric-lamp socket, a head mounted thereon, a key operating in the head and arranged in the main circuit, a center contact arranged in the main circuit, a contact-plate secured on the lamp-socket but insulated therefrom, a swinging switch member for engag-

ing with said contact-plate, a spring for moving said member in one direction, a thermostat arranged on the head, a shunt-winding on said thermostat, one terminal of the winding being connected to said contact-plate, while the other terminal is connected to the socket member, a latch mounted to swing on the head and adapted to engage with said switch member and actuated by the thermostat, and an electrical connection between said switch member and the key.

5. The combination of an electrical switch and a shunt-circuit, an automatic circuit-breaker arranged in the shunt-circuit having a time limit, the current through said shunt-circuit producing light, and also mechanical energy for releasing the circuit-breaker.

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

CHAS. W. SNYDER.

Witnesses:

JNO. M. RITTER,  
C. R. FERGUSON.