H. S. DUNNING.

ELECTRIC LAMP CUT-OUT.

APPLICATION FILED AUG. 6, 1910.

1,066,475. Patented July 8, 1913.

*Fig. 1.*

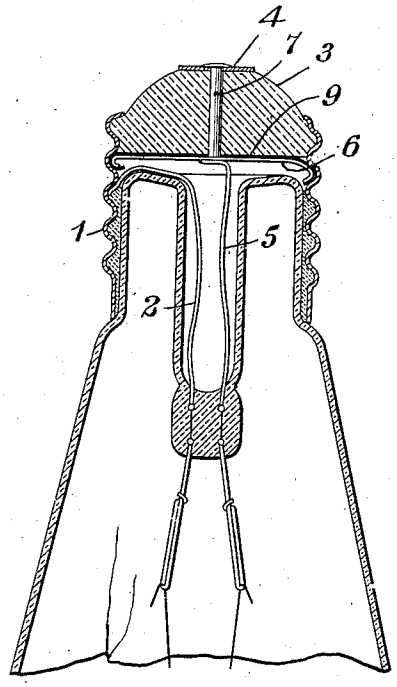
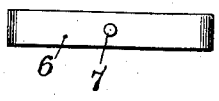



*Fig. 2.*




WITNESSES:

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# UNITED STATES PATENT OFFICE.

HERBERT S. DUNNING, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO WESTINGHOUSE LAMP COMPANY, A CORPORATION OF PENNSYLVANIA.

## ELECTRIC-LAMP CUT-OUT.

1,066,475. Specification of Letters Patent. Patented July 8, 1913.

Application filed August 6, 1910. Serial No. 576,001.

*To all whom it may concern:*

Be it known that I, HERBERT S. DUNNING, a citizen of the United States, and a resident of East Orange, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Electric-Lamp Cut-Outs, of which the following is a specification.

My invention relates to cut-out devices for electric incandescent lamps and it has for its object to provide a self-contained lamp and cut-out which shall be simple in construction and effective in operation.

Figure 1 of the accompanying drawing is a sectional view of the base portion of a lamp that embodies my invention, and Fig. 2 is a plan view of one of the parts of the said lamp.

The present lamp is provided with the usual base comprising a threaded cylindrical shell 1 that is connected to one of the terminals or leading-in wires 2 of the lamp, an insulating end member 3 therefor, and a conducting tip or plate 4 that is mounted on the said insulating member and is connected to the other terminal or leading-in wire 5 of the lamp.

Within the cylindrical shell 1 and extending across the same adjacent to the inner face of the insulating end member 3, is a resilient conducting strip 6 having a stem 7 that extends through the end member 3 and is connected to the conducting plate 4. The extremities of the strip 6 are rounded inwardly and are resiliently pressed toward the cylindrical shell 8 but are normally maintained out of engagement therewith by insulating films 9 that are punctured or destroyed when the voltage between the said parts becomes excessive. The insulating films may be composed of any suitable material, such as mica or borax. Thus, the terminals of the lamp are separated by only thin films of insulating material, and when the filament of the lamp becomes broken, or the lamp is otherwise damaged, the voltage between the member 6 and the cylindrical shell 1 becomes sufficient to puncture the insulating film or films, and the lamp is automatically short-circuited.

I claim as my invention:

1. An incandescent lamp comprising a conducting base member, a resilient conducting member within the same, and an insulating film separating the said members and pressed by the resilient member against the base member.

2. In an incandescent lamp, the combination with a base comprising a conducting shell, an insulating end member, and an outer plate for the end member, of a conducting member extending across the inner face of the insulating end member and connected to said plate, and an insulating film between the conducting member and the shell.

3. An incandescent lamp comprising a conducting base member that is connected to one terminal of the lamp, a resilient conducting member that is within the base member and is connected to the other terminal of the lamp, and an insulating film between the said members and pressed by the resilient member against the base member.

In testimony whereof, I have hereunto subscribed my name this 21st day of July, 1910.

HERBERT S. DUNNING.

Witnesses:

CHARLES E. KELLY,

OTTO S. SCHAIRER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."