

S. E. DOANE.
TURN DOWN INCANDESCENT LAMP.
APPLICATION FILED NOV. 18, 1904.

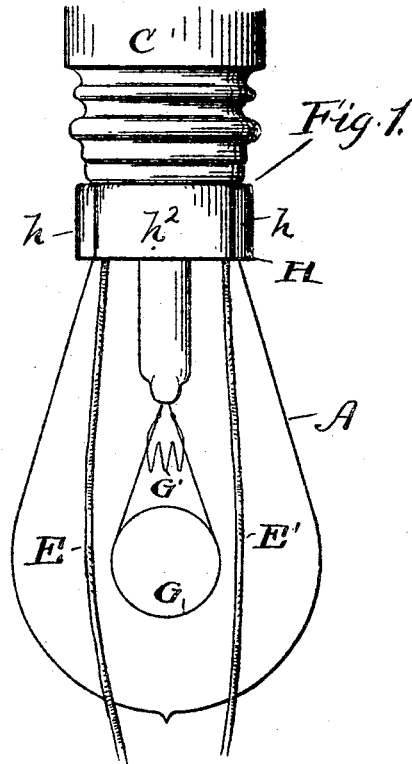
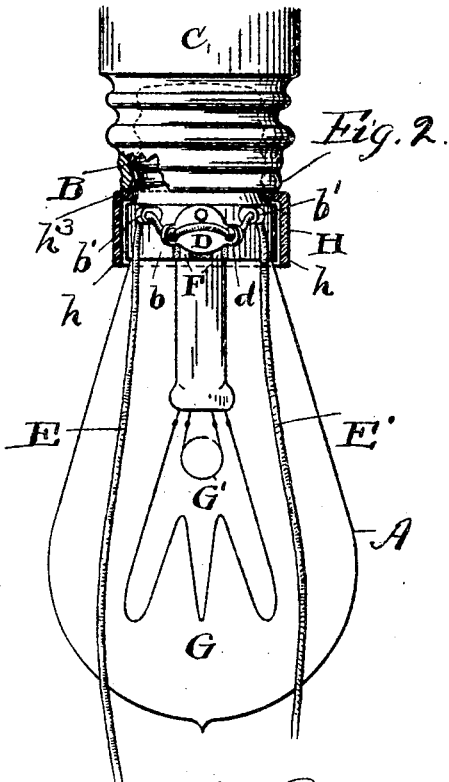


Fig. 3.

Fig. 4.

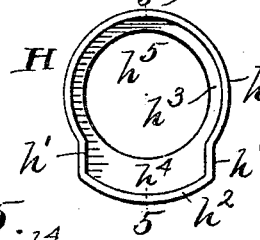
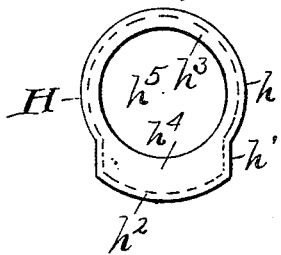
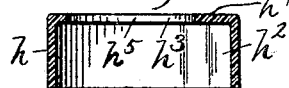


Fig. 5.



Witnesses,
E. B. Gilchrist
B. W. Brackett.

Inventor
Samuel Everett Doane,
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UNITED STATES PATENT OFFICE.

SAMUEL EVERETT DOANE, OF CLEVELAND, OHIO, ASSIGNOR TO THE NATIONAL ELECTRIC LAMP COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF NEW JERSEY.

TURN-DOWN INCANDESCENT LAMP.

No. 800,993.

Specification of Letters Patent.

Patented Oct. 3, 1905.

Application filed November 16, 1904. Serial No. 232,931.

To all whom it may concern:

Be it known that I, SAMUEL EVERETT DOANE, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Turn-Down Incandescent Lamps, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

Incandescent electric lamps having two filaments and a switch on the base of the lamp arranged to differently connect the filaments, whereby the candle-power of the lamp may be varied, are in common use under the name of "turn-down lamps." A convenient arrangement of such lamps has been to have the switch operated by a pair of cords, one of which is pulled to cause the illumination of the "bright" filament and the other the "dim" filament. This arrangement has been found satisfactory, except that where the lamps are placed within ordinary reach it frequently happens that one inadvertently takes hold of or touches the switch itself, receiving an unpleasant or dangerous shock.

The object of the present invention is to eliminate the possibility of such contact. This I accomplish by providing a protecting-cap which is preferably made of insulating material and is so formed that it snugly grasps the base of the lamp and covers over the switch without interfering with the operation thereof. The peculiar form of the cap by which it accomplishes this result in an effective manner while being neat in appearance is comprehended within the present invention and is hereinafter more fully explained, and definitely set out in the claims.

The drawings clearly illustrate my invention.

Figure 1 is a side elevation of a turn-down lamp in place in its socket and having my shielding-cap. Fig. 2 is a similar view sectioned through the cap. This view, as far as the cap and switch are concerned, is taken from the same point of view as Fig. 1. The filaments, however, are shown as from a position at right angles to Fig. 1. The remaining figures are views of the cap itself. Fig. 3 being a top plan, Fig. 4 being a bottom plan, and Fig. 5 a cross-section on the line 5 5 of Fig. 4.

Referring to the parts by letters, A repre-

sents the globe of the lamp, and B the usual cap forming the base thereof. This base has some usual means for engaging the socket C and has also a cylindrical portion *b*, which carries the switch. In the form shown the movable part of the switch consists of a plate D, pivoted to the cylindrical portion *b* of the base. This plate has a pair of ears *d*, through which pass the operating-cords E E', these cords being guided through suitable eyes *b'*, attached to the base. The switch member D is adapted to make contact with either of a pair of insulated pieces F, which are set into the base and are connected one for the ordinary filament G and the other for the dim filament G'. Thus when one cord is pulled the bright filament is illuminated; when the other cord is pulled, the dim filament. This construction of switch is a well-known form and is to be taken as an illustration of any switch formed on the projecting portion of the base of the lamp.

The insulating-cap by which I shield the switch is designated H. It has the following peculiar formation: There is a partly cylindrical wall *h* extending for something over half a circumference and adapted to snugly embrace the base portion *b*. This wall has outwardly-extending portions *h'*, between which is a connecting portion *h²*, which is a portion of a cylinder of larger radius than the portion *h*, concentric therewith. Extending inward from the upper edge of the wall *h* is a flange *h³*, and extending inward from the walls *h'* and *h²* is a wider flange *h⁴*, which merges with the flange *h³*, these two flanges being in the same plane and bounding a circular hole *h⁵*.

The hole *h⁵* of the cap is of substantially the same diameter as the exterior of the lamp-base above the cylindrical portion *b*. The walls *h'* are located just a little farther apart than the eyes *b'* on the base, and the offset-wall *h²* is just far enough out from the base to loosely cover the switch, clearing the ears *d*. The wall *h* hugs the base portion *b* of the lamp snugly enough to retain the cap in place. Moreover, when the lamp is in its socket the inwardly-extending flanges *h³* and *h⁴* of the cap are restrained between the end of the socket and a shoulder on the base. The walls of the cap extend downward beyond the base portion, as shown.

It will be seen from the illustration and de-

description that the cap is unobtrusive, may be easily removed when the lamp is removed from the socket, but is securely held in place when the lamp is in the socket, and thus effectively prevents accidental contact with the switch without interfering with its operation or with the appearance of the lamp.

I claim—

1. The combination with a turn-down incandescent lamp having a metal base composed of a threaded portion adapted to engage in a socket, and a plain portion above said threaded portion, a switch mounted on the outside of said plain portion, and a protecting-cap embracing the plain portion of said base and extending over said switch.

2. The combination of a turn-down incandescent lamp, having a metallic base, an external switch on said base and an insulating-cap fitted upon said base and having an offset portion which shields the switch.

3. The combination of a turn-down incandescent lamp, having a metallic base, the socket for said base, a switch upon said base outside of said socket, and a protecting-cap held between said base and said socket and extended over said switch.

4. A protecting-cap for the base of a turn-down incandescent lamp having a switch upon its base, said cap having an opening for receiving the threaded portion of said base, and an offset portion adapted to extend over said switch and shield the same.

5. The combination of an incandescent lamp having an exterior switch on its base, a protecting-cap adapted to snugly embrace such base, and having an offset portion to cover the switch and an inwardly-extending flange to engage a shoulder on the base.

6. The combination of an incandescent electric lamp having a base with a cylindrical portion, a switch mounted on the exterior of such

cylindrical portion, an insulating-cap having a partly-cylindrical wall adapted to embrace the cylindrical portion of the base and having short outwardly-extending walls and having a second wall connecting said short walls and far enough out to clear the switch.

7. The combination of an incandescent electric lamp having a base with a cylindrical portion and a switch mounted on the exterior of such cylindrical portion, with a protecting-cap having a partly-cylindrical wall adapted to embrace the cylindrical portion of the base, and having an outwardly-offset wall loosely covering the switch, and inwardly-extending flanges from such walls bounding a circular hole, whereby the cap shields the switch and is held in place by embracing the cylindrical wall of the base and by extending over a shoulder thereon.

8. The combination of an incandescent electric lamp, having a base with a cylindrical portion, a switch mounted on the exterior of such cylindrical portion, an insulating-cap having a partly-cylindrical wall adapted to embrace the cylindrical portion of the base, and having short outwardly-extending walls connected by a partly-cylindrical wall, making an offset portion far enough out to clear the switch, inwardly-extending flanges from all of said walls, merging in a common plane and bounding a circular hole, the recess bounded by the offset portion of the cap being open toward the globe of the lamp, and cords for operating the switch passing therefrom through such opening.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

SAMUEL EVERETT DOANE.

Witnesses:

H. S. BLACK,

E. B. GILCHRIST.