

(No Model.)

H. M. BYLLESBY & P. LANGE.

INCANDESCENT LAMP.

No. 383,616.

Patented May 29, 1888.

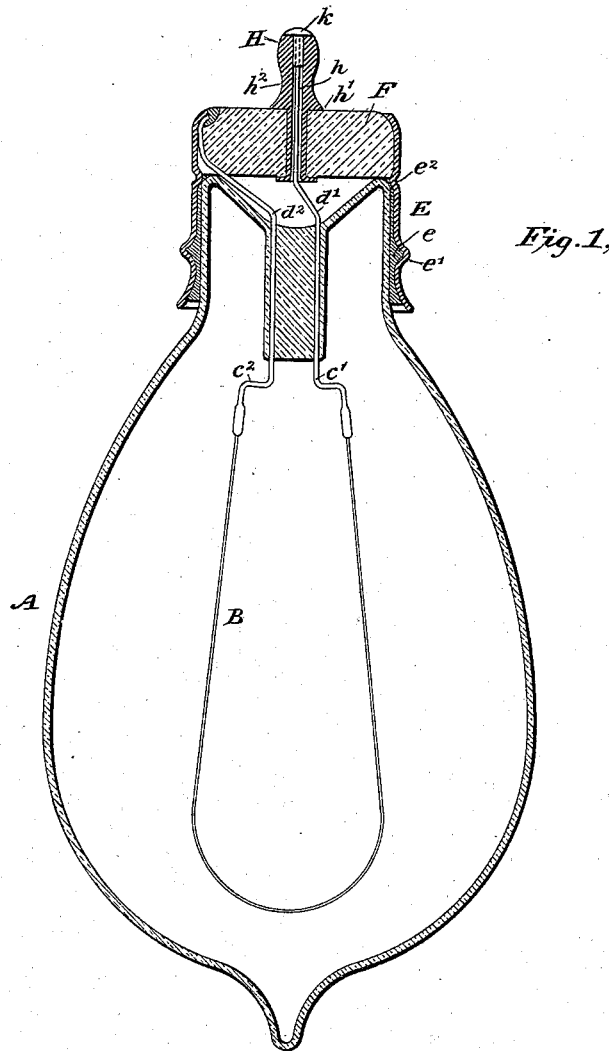


Fig. 1,

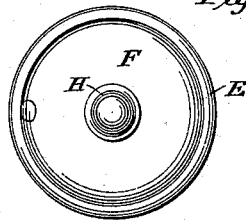


Fig. 2,

Witnesses

Geo. W. Breck.

Edward Thorpe.

Inventors.

Henry M. Byllesby.

Philip Lange.

By their Attorneys.

Pope, Edgcomb & Terry.

# UNITED STATES PATENT OFFICE.

HENRY M. BYLLESBY AND PHILIP LANGE, OF PITTSBURG, PENNSYLVANIA,  
ASSIGNORS TO THE WESTINGHOUSE ELECTRIC COMPANY, OF SAME PLACE.

## INCANDESCENT LAMP.

SPECIFICATION forming part of Letters Patent No. 383,616, dated May 29, 1888.

Application filed September 1, 1887. Serial No. 248,462. (No model.)

*To all whom it may concern:*

Be it known that we, HENRY M. BYLLESBY and PHILIP LANGE, citizens of the United States, residing in Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Lamp-Bottoms, of which the following is a specification.

The invention relates to the construction of the bottoms or caps applied to the necks of incandescent-electric-lamp globes for the purpose of attaching them to their sockets and securing electrical connections with the filaments.

The invention consists, generally, in applying to the neck of the lamp a metallic thimble, in the bottom of which there is placed a glass plate or block carrying a central contact-point secured in position by turning the end of the thimble upon its edge. One of the leading-in wires from the filament is led along the side of the glass block, and is secured to the outer metallic ring or thimble by soldering. The other leading-in wire is led through an aperture in the central contact, and it is soldered at its outer end.

In the accompanying drawings, Figure 1 is a vertical section of a lamp-bottom embodying the features of the invention, and Fig. 2 is an end view of the lamp-bottom.

Referring to the figures, A represents the globe of an incandescent electric lamp, and B its filament. The filament is supported on the two leading-in wires  $c'$  and  $c''$ , which lead through the neck of the lamp and out through the wall, as shown at  $d'$   $d''$ . To the neck of the lamp there is applied a thimble, E, of brass or other suitable metal, and it is cemented upon the lamp, as shown at  $e$ . For the purpose of holding the cement securely, an annular lug,  $e'$ , is thrown out upon the thimble. This receives the cement and prevents it from slipping out and the thimble from being displaced. A second annular lug,  $e''$ , is pressed into the thimble at the proper point for receiving the inner edge of a block, F, of glass. This block carries a central contact point or pin, H, which is perforated, as shown at  $h$ . The pin projects through an aperture

in the block F, and its inner end is expanded over the inner surface of the block. A shoulder,  $h'$ , upon the pin rests against the outer surface of the block F, and in this manner the pin is securely held in position.

One of the leading-in wires,  $d'$ , leads through the perforation  $h$  to the outer end of the pin H, and is there secured by a drop of solder,  $k$ , or in any other convenient manner, forming a curved or rounded surface.

The pin H is formed with a narrowing neck,  $h''$ , for receiving contact-springs when it is applied to the holder.

The second leading-in wire,  $d''$ , is led between the glass block F and the metallic thimble E to the outer edge, and is there secured by soldering, thus insuring perfect electrical connection.

By using the glass plate F it is found that not only are the electrodes securely insulated from each other, but the lamp-bottom is unaffected by moisture and by heat, and neither shrinks nor expands to any appreciable extent, and is more durable than the constructions heretofore proposed.

By passing the leading-in wire  $d'$  through the entire length of the pin H contact is made throughout a considerable length of the metal, and thus sure and reliable electrical connections are formed. The solder at the end protects the parts. Likewise the conductor  $d''$ , passing in metallic contact with the thimble E, is placed in good electrical connection with that thimble.

We claim as our invention—

1. The combination, with the globe of an incandescent-electric lamp, of a metallic thimble secured thereto, a glass block spun or otherwise fastened into the end of the thimble, a central contact-pin having a neck extending through the center of the glass block and expanded upon its inner surface, and having a shoulder resting upon the outer surface of the block, and having a perforation through its length, and the leading-in wire passing through said perforation and soldered at the outer end of the pin.

2. The combination, with a thimble for incandescent-electric-lamp bulbs, of a non-con-

ducting bottom block spun or otherwise fast-  
ened into the thimble, and a central contact-  
pin having a neck extending through the cen-  
ter of the block and expanded upon its inner  
5 surface, and having a shoulder resting upon  
the outer surface of the block, and having a  
perforation through its length for receiving the  
leading-in wire.

In testimony whereof we have hereunto sub-  
scribed our names this 1st day of July, A. D. 1887.

HENRY M. BYLLESBY.  
PHILIP LANGE.

Witnesses:

W. D. UPTGRAFF,  
CHARLES A. TERRY.