

(No Model.)

E. P. THOMPSON.  
INCANDESCENT ELECTRIC LAMP.

No. 366,352.

Patented July 12, 1887.

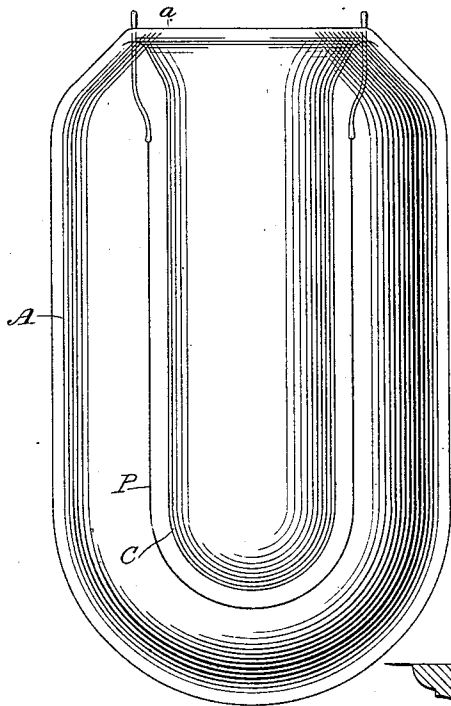


Fig. 1.

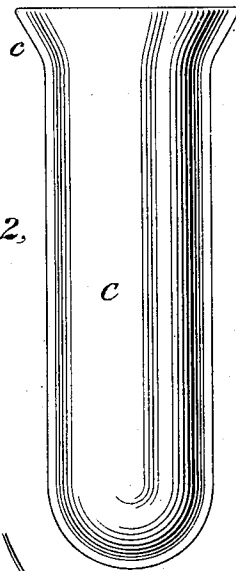


Fig. 2.

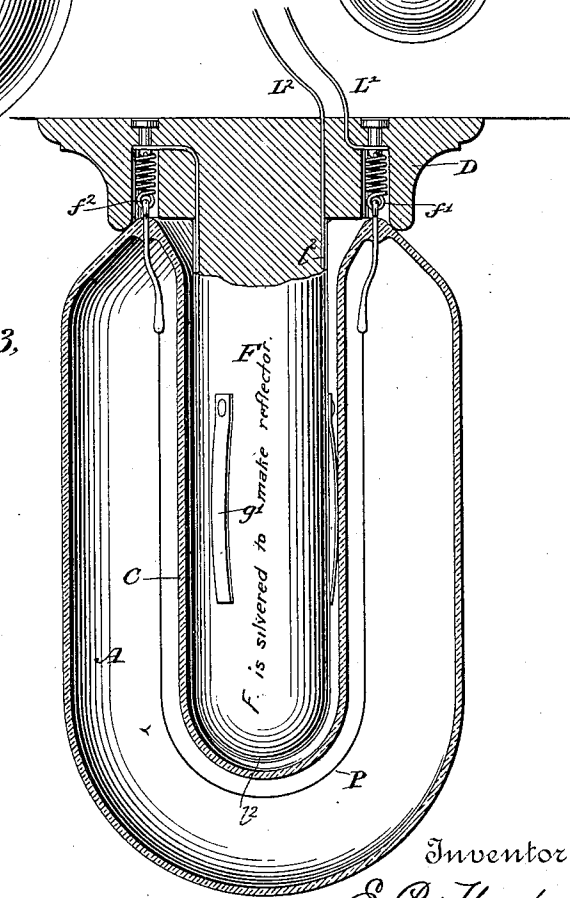


Fig. 3.

Witnesses

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# UNITED STATES PATENT OFFICE.

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## INCANDESCENT ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 366,352, dated July 12, 1887.

Application filed September 15, 1886. Serial No. 213,576. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD P. THOMPSON, a citizen of the United States, residing in Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Incandescent Electric Lamps, of which the following is a specification.

The invention relates to the construction of globes for incandescent electric lamps, especially the globes for lamps employing large carbon filaments.

The object of the invention is to reduce as much as possible the space necessary to be evacuated.

The invention consists, in general terms, in inserting within an outer globe an inner globe or tube which shall occupy the space within the arms of the filament, and in providing a fixture with a projection fitting within the tube, and also in employing a non-incandescing conductor connected with the respective supply-conductors for neutralizing the static charge of the filament.

In the accompanying drawings, Figure 1 is an elevation of a globe embodying the features of the invention. Figs. 2 and 3 show certain details.

Referring to the figures, A represents an outer inclosing-globe of glass designed to contain the filaments P. This globe is open at one end, as shown at *a*, the sides being preferably drawn in upon the opening. A tube, C, has its end flaring slightly, as shown at *c*. This is designed to be inserted through the opening *a*, with its edges coming in contact with the edges of the globe A. The two globes are sealed together along their adjacent edges, the leading-in wires being sealed in the joint. This may be accomplished by any of the well-known processes of sealing. The filament is thus contained in a cylindrical space between the two walls, and thus the space to be evacuated is greatly diminished. This form of lamp permits of the use of a fixture of peculiar construction, as is illustrated in Fig. 3. This consists of a block, D, designed to be secured to the ceiling or a supporting-wall in any convenient manner, and having a projection, F, designed to extend within the inner tube or globe of the lamp. This projection

may with advantage be silvered upon its surface, or in any other convenient manner made capable of diffusing the light from the lamp. The block is provided with two contact-pieces, *f'* and *f''*, designed to be connected with two leading-in wires. Supply-conductors *L'* and *L''* lead, respectively, to these contact-pieces. For the purpose of causing the loose carbon which is thrown off from the filaments of incandescent lights to be attracted toward and deposited upon the surface of the inner globe, one of the conductors—*L''*, for instance—may with advantage be connected through wire *E*, laid near the surface or just beneath the surface of the projection F. In this manner the inductive effects of the current traversing the coil *E* will attract the particles of carbon toward itself.

Suitable clips or springs, *g'*, are placed in the side of the projection F, for the purpose of holding the globe in position.

It is evident that there are various ways of modifying the shape of the two globes without departing from the spirit of the invention; but preferably a globe having its sides approximately straight is used for the outer globe, as well as for the inner one.

Instead of the hooks shown in Fig. 3 for making electrical connections with the leading-in wires, any suitable form of pressure-clips or contact-plates may be employed.

I claim as my invention—

1. The combination of the outer inclosing-globe of an incandescent lamp, a tube or globe projecting within the same, and a fixture for receiving the lamp having a projection fitting within said tube, substantially as described.

2. The combination, with an incandescent electric lamp having a tube projecting within the arms of the filament, of a fixture having a projection extending within said tube, which projection is coated with light-diffusing substance, substantially as described.

3. The combination, with an incandescent electric lamp having its wall extending inward between the arms of a filament, of a projection designed to extend within such portion of the wall, and a conductor connected with a supply-conductor applied to the projection, substantially as described.

4. The combination, with an incandescent electric lamp, of a non-incandescing conductor connected at its respective ends with the respective supply-conductors, and extending in  
5 a direction approximately parallel with the filament.

5. The combination, with an incandescent electric lamp having its wall extending inward between the arms of the filament, of a  
10 conductor connected with the supply-conduct-

ors and extending within the arms of the filament, substantially as described.

In testimony whereof I have hereunto subscribed my name this 17th day of August, A. D. 1886.

EDWARD P. THOMPSON.

Witnesses:

DANL. W. EDGECOMB,  
CHARLES A. TERRY.