(No Model.)

# T. A. EDISON.

## MANUFACTURE OF INCANDESCING ELECTRIC LAMPS.

No. 264,650. Patented Sept. 19, 1882.

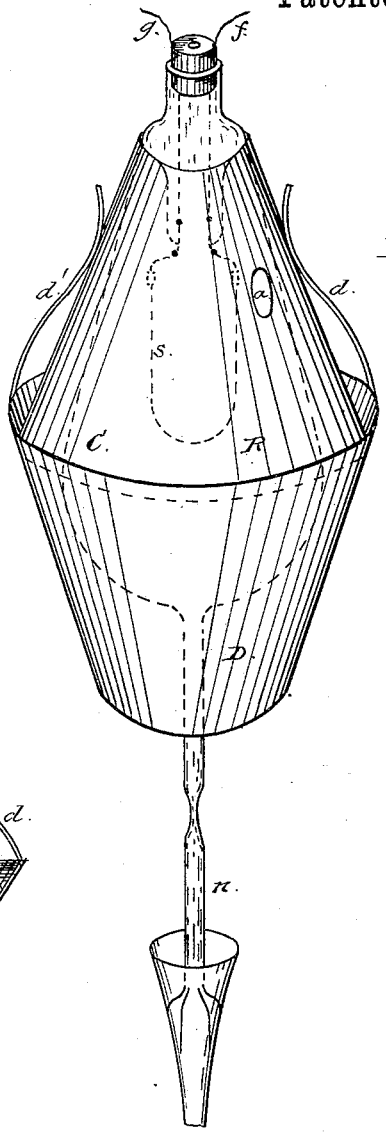



Fig. 1.

Fig. 2.

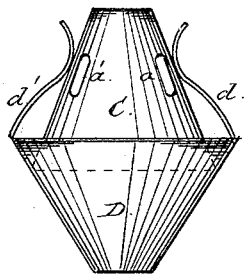
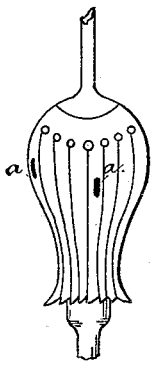



Fig. 4.



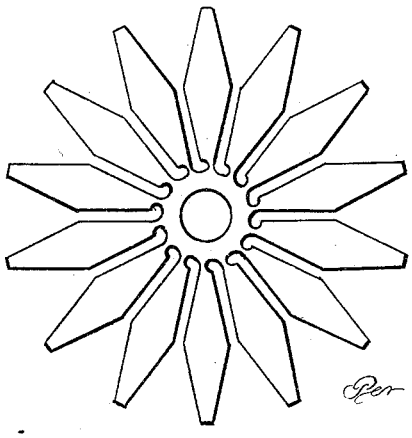



Fig. 3.

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# UNITED STATES PATENT OFFICE.

THOMAS A. EDISON, OF MENLO PARK, NEW JERSEY.

## MANUFACTURE OF INCANDESCING ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 264,650, dated September 19, 1882.

Application filed December 9, 1881. Renewed August 14, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS A. EDISON, of Menlo Park, in the county of Middlesex and State of New Jersey, have invented a new and useful Improvement in the Manufacture of Incandescing Electric Lamps (Case No. 382;) and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of this invention is to facilitate the exhaustion of the vacuum-chambers of incandescent electric lamps.

The invention consists in inclosing the lamp while it is being exhausted in a metallic or other inclosing case or envelope capable of retaining heat, which envelope will be heated by the current passing through the carbon of the lamp, and so heat the air remaining in the globe as to assist in driving it out.

A form of my invention is shown in the drawings, in which Figure 1 is a view of a lamp surrounded by its metal case; Fig. 2, a detail view of a portion of the same, and Figs. 3 and 4 views showing the manner of forming another kind of metal case.

C is the inclosing-globe of an incandescent electric lamp in the process of exhaustion, *s* being its carbon filament and *n* the exhaust-tube leading to the Sprengel air-pump.

D R is a metal case placed around the lamp, consisting of two cones, the upper fitting within the lower, and the whole held against the lamp by spring-fingers *d d'*. This case may instead be made by punching out a piece of sheet metal, as in Fig. 3, and then bending it up around the lamp-globe, as in Fig. 4. Apertures *a* are provided through which to observe the carbon filament. The current is applied to the carbon *s* through the conductors *f g*, and the heat thus produced heats the inclosing-case D, so that all parts of the globe C are equally heated and the air is more rapidly driven out.

It is evident that, instead of using the metal case shown, the globe might be coated with a metallic foil or with an opaque powder—such as lamp-black—which can be removed after the lamp has been heated, exhausted, and sealed off.

What I claim is—

1. The combination, with the inclosing-globe of an incandescent electric lamp, of means situated without the globe for retaining the heat caused by the incandescence of the carbon filament, substantially as and for the purpose set forth.

2. The combination, with the inclosing-globe of an incandescent electric lamp, of an inclosing case or envelope adapted to be heated by the incandescence of the carbon filament and to retain the heat so generated, substantially as and for the purpose set forth.

3. The metal case or envelope composed of radial strips bent up around the globe, substantially as set forth.

This specification signed and witnessed this 5th day of December, 1881.

T. A. EDISON.

Witnesses:

H. W. SEELY,

WM. H. MEADOWCROFT.