(No Model.)

T. A. EDISON.

ELECTRIC LAMP AND THE MANUFACTURE THEREOF.

No. 251,549. Patented Dec. 27, 1881.

Fig. 1.

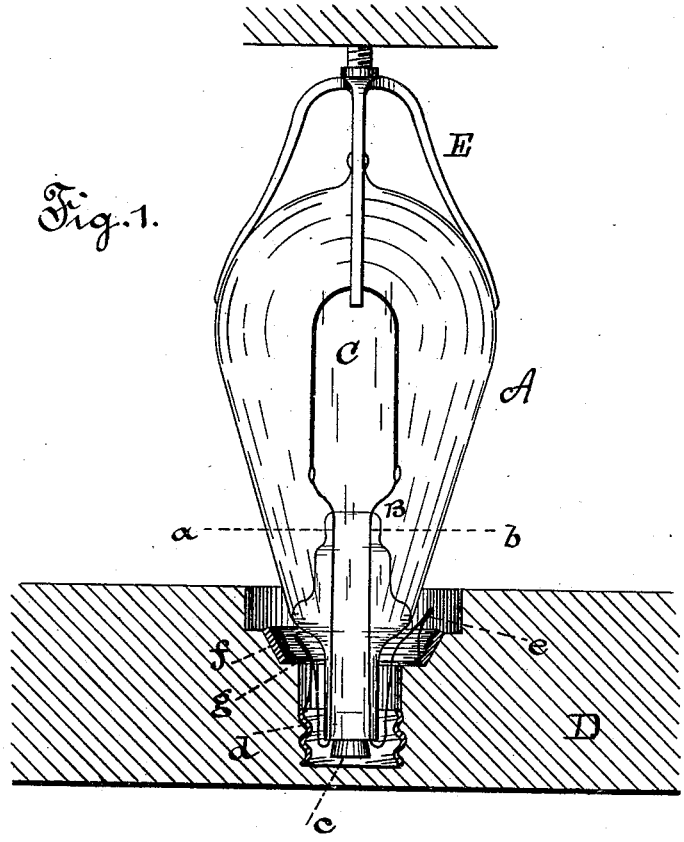
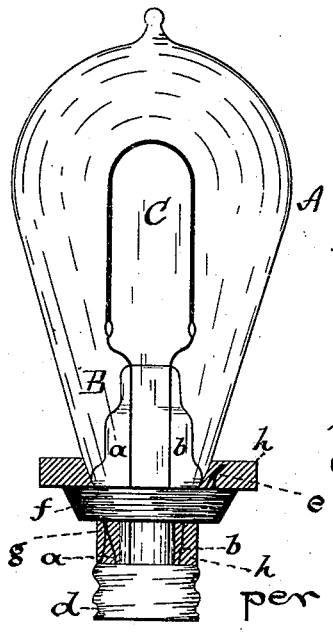


Fig. 2.



Attest:

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ELECTRIC LAMP AND THE MANUFACTURE THEREOF.

SPECIFICATION forming part of Letters Patent No. 251,549, dated December 27, 1881.

Application filed May 31, 1881. (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 Electric Lamps and the Manufacture thereof; 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.

When it is intended that an incandescing electric lamp shall be readily removable from its socket or support it is necessary that the lamp be provided with a base, in or upon which are secured contact-plates, to which are electrically connected the wires leading to the incandescing conductor. Such base hitherto has been made of metal or wood, and the lamp then secured thereto or therein by cement.

The object of this invention is to provide a simpler and cheaper method of providing the lamp with the necessary base. This I accomplish by molding the entire base directly upon the neck of the lamp out of any suitable plastic material, the exterior contact-plates of the base necessary for completing the circuit from the socket to the incandescing conductor being secured properly to the base in the operation of molding it. In carrying this into practice metal rings, forming the exterior contact-plates of the base, are placed in a suitable mold, wires being first soldered to the inner surfaces of such rings, which are arranged to project upwardly on opposite sides of the mold. The wires of the lamp are bent up on opposite sides of the neck of the same, and the lamp is dropped into the center of the mold and held upright therein by a spring-holder which is adjusted down upon the same. The wire ends of the lamp and contact-rings are twisted together and turned down into the mold, when such mold is filled with plaster-of-paris, which is allowed to harden. The lamp is then removed from the mold; and the plaster-of-paris may be colored to improve the appearance of the base, or the material may be colored prior to molding.

In the drawings, Figure 1 is a vertical section of the mold, showing the contact-rings therein and the lamp in position, with the wire ends twisted together; and Fig. 2, an elevation of the lamp complete, the lower end of the same being in partial section.

Like letters denote corresponding parts in both figures.

A is the globe or bulb of the lamp; B, the wire-support; C, the carbon filament, and *a b* the leading-in wires. These are constructed and the bulb is exhausted and sealed as fully described in my patents and former applications. A cork, *c*, is forced into the lower tubular end of the wire-support B to separate the wires *a b*, after which said wires are bent up on opposite sides of the neck, as shown in Fig. 1.

D is the mold, which is of the proper shape to produce the base. The metal screw-ring *d*, provided with wire *g*, fits the lower portion of such mold, while the plain beveled ring *f*, carrying wire *e*, is supported above the screw-ring by a beveled seat in the mold.

E is the spring-holder, which is adjustable vertically, and after the lamp is set into the mold is dropped upon the same and fixed in position so as to hold the lamp steady. The ends of the wires *a g* and *b e* are now twisted together and turned down into the mold, so as to be entirely covered by the plaster-of-paris. The plaster-of-paris *h*, Fig. 2, is then poured into the mold and forms the body of the base, the metal rings surrounding the plaster-of-paris body. After the plaster-of-paris has hardened the spring-holder E is raised and the lamp is removed from the mold, when the plaster-of-paris may be colored, if desired; or the material may be colored prior to molding.

It is evident that these molds and spring-holders can be multiplied to any desired extent and arranged in series side by side.

While the base has herein been described as made of plaster-of-paris, it has been so done as a convenient illustration only, it being evident that any plastic material may be used—that is, any material which can first be put into condition for molding and which thereafter will harden or solidify, retaining the form given it by molding.

It is also evident, while rings encircling the base are herein shown as the contacts upon the base, that contacts of other form or shape may

be used thereon, as the invention in this case in no way relates to or is dependent upon the form, size, or shape of such contacts.

I do not claim herein a lamp provided with a base entirely of insulating plastic material molded directly upon its neck, as such subject-matter will form the subject of a separate application for a patent.

What I claim is—

1. The method of making the bases for and attaching the same to incandescing electric lamps, and attaching the exterior contacts to the base, consisting in placing the lamp and contacts connected to the respective terminals of the incandescent conductor in a mold and then filling the mold with plastic material around the neck of the lamp and within the contacts, whereby the entire base is formed of such plastic material, substantially as set forth.

2. The mold having seats for the contact-rings, in combination with a holder for retaining the lamp in its proper position in the mold, substantially as and for the purpose set forth.

This specification signed and witnessed this 20th day of May, 1881.

THOS. A. EDISON.

Witnesses:
RICHD. N. DYER,
H. W. SEELY.