(No Model.)

A. SWAN.

INCANDESCENT LAMP.

No. 583,204. Patented May 25, 1897.

Fig. 1.

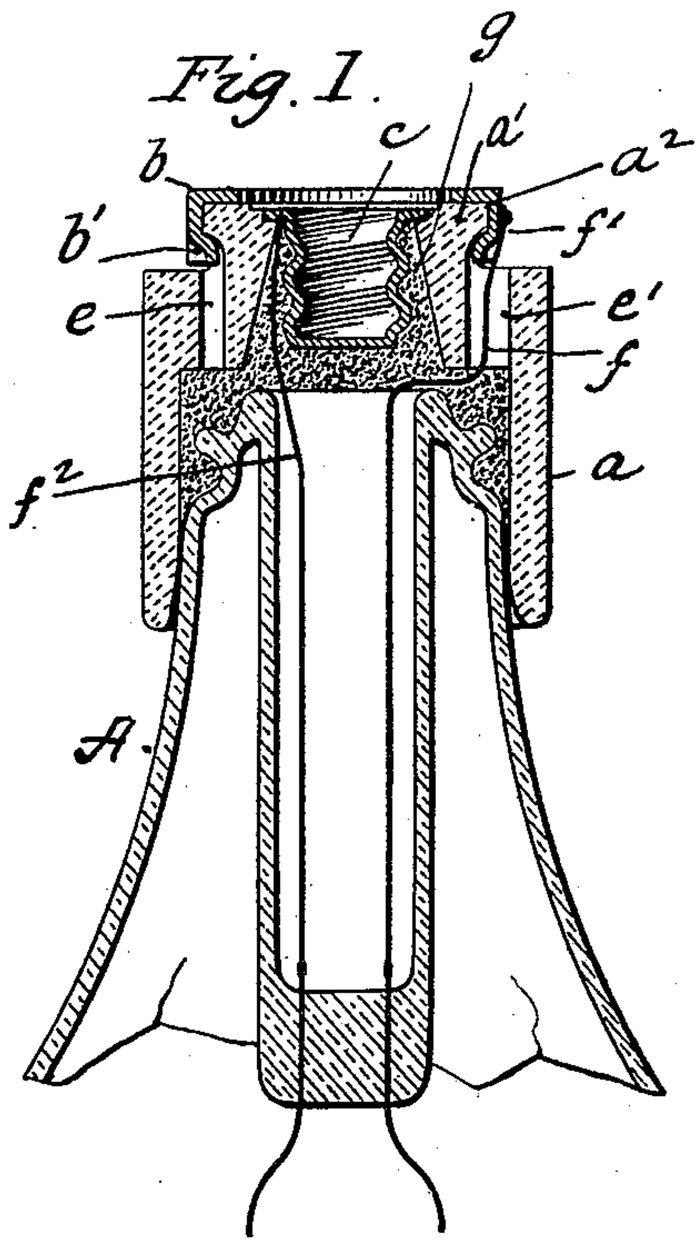
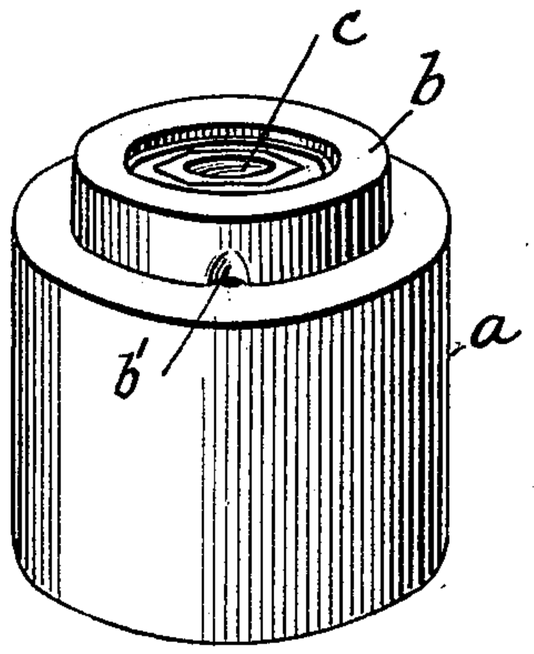


Fig. 2.



WITNESSES:
Frank S. Ober.
Harry B. Bailey.

INVENTOR
Alfred Swan
BY
Wm. A. Rosenbaum
ATTORNEY

UNITED STATES PATENT OFFICE.

ALFRED SWAN, OF NEW YORK, N. Y., ASSIGNOR TO THE GENERAL ELECTRIC COMPANY, OF NEW YORK.

INCANDESCENT LAMP.

SPECIFICATION forming part of Letters Patent No. 583,204, dated May 25, 1897.

Application filed December 8, 1896. Serial No. 614,887. (No model.)

To all whom it may concern:

Be it known that I, ALFRED SWAN, a subject of the Queen of Great Britain, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Incandescent Lamps, of which the following is a full, clear, and exact description.

This invention relates to incandescent electric lamps, and has special reference to the construction of the bases thereof with a view of simplifying and cheapening the cost of manufacture.

The invention consists of certain means for securing the electrical contacts upon the lamp-base.

In the accompanying drawings, Figure 1 is a central section of a lamp and lamp-base. Fig. 2 is a perspective view of the base.

A represents the neck of the lamp, upon which is fitted a base *a*, of cylindrical shape and made, preferably, of porcelain or other suitable insulating material. Upon the end of the cylinder is a low concentric projection *a'*, forming an annular shoulder a^2, the diameter of which is somewhat less than that of the base. Upon this shoulder is fitted a metallic ring *b*, forming one of the lamp-contacts, and concentric with this ring is a second contact *c* in the form of a metallic shell or socket set into the center of the base. The invention consists in the means for securing these two contacts *b* and *c* in position. *b* is held by forming two or more holes *e* substantially at right angles to the face of the base and at such distance from the axis thereof as to undercut the shoulder a^2 and terminating short of the face of projection *a'*, thus forming a cavity or pocket at the base of the shoulder into which the lower edge of the ring *b* may be driven by a suitable tool, as shown at *b'*. One of these holes *e'* will form a passage for one of the leading-in wires *f*, the end of such wire being soldered to the ring, as shown at *f'*. The object in producing the cavities or pockets by forming holes at right angles to the face of the base is that it is the simplest and cheapest way of doing it. The ring would obviously be held as well if the pockets were formed by a tool acting radially or laterally against the side of the shoulder. It will be observed that the ring is prevented from rotating on as well as slipping off the flange. Hence the wire *f*, connected to it, will not be cut off by any rotary movement of the ring.

The center contact or shell *c* is formed of sheet metal and is provided with a rolled thread which forms a spiral groove on the outside as well as the inside. This contact is held in place by embedding it in cement *g*, which fills the external spiral groove and when it becomes hardened holds it fixedly in place. The center opening in the porcelain cylinder in which the shell *c* is placed is conical, being narrowest at the face of the base, so that the cement surrounding the shell forms a wedge and effectually prevents the shell from being detached from the base. The other leading-in wire f^2 is secured to contact *c* in the manner shown.

Having thus described my invention, I claim—

1. In an incandescent lamp, a base having an annular shoulder of less diameter than the base and over which is fitted an annular contact-ring, the base being perforated longitudinally, the outer end of the perforation forming an undercut cavity in the side of the shoulder into which the edge of the ring is driven to hold the ring on the shoulder.

2. In an incandescent lamp, a base having an annular shoulder of less diameter than the base and over which is fitted an annular contact-ring, the base being perforated longitudinally, the outer end of the perforation forming an undercut cavity in the side of the shoulder into which the edge of the ring is driven to hold the ring on the shoulder, one of said perforations also serving as a passage for a leading-in wire, substantially as described.

3. In an incandescent lamp a cup-shaped base having a central conical opening narrowest at the face of the base, in combination with a metallic shell externally grooved and located in said conical opening and held therein by cement filled into the conical opening surrounding the shell, substantially as described.

In testimony whereof I subscribe my signature in presence of two witnesses.

ALFRED SWAN.

Witnesses:

WM. A. ROSENBAUM,

FRANK S. OBER.