(No Model.)

# J. S. POTTER, D. J. CARTWRIGHT & B. B. KEYES.

## ELECTRIC INCANDESCENT LAMP.

No. 436,316. Patented Sept. 9, 1890.

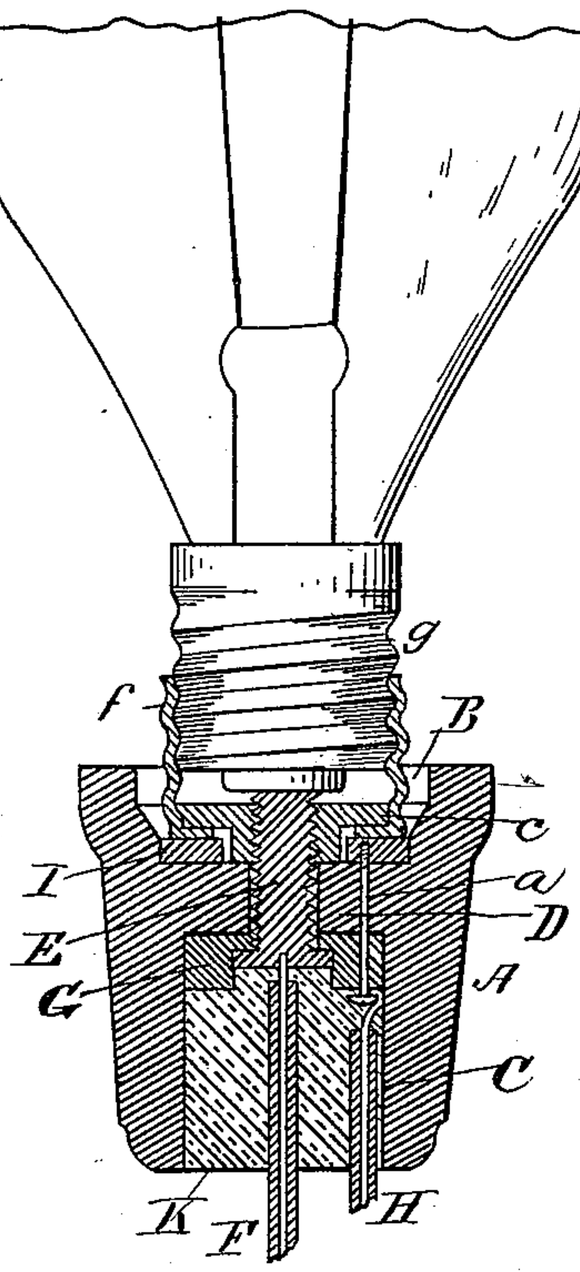


Fig. 1.

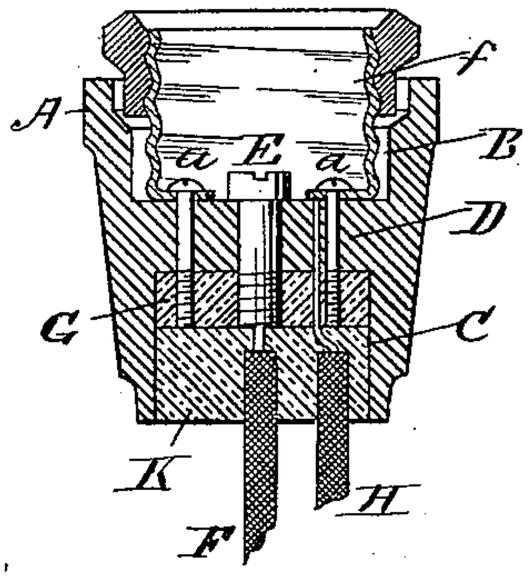


Fig. 2.

WITNESSES

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# UNITED STATES PATENT OFFICE.

JOHN S. POTTER, OF NEWTON, DAVID J. CARTWRIGHT, OF BOSTON, AND BENJAMIN B. KEYES, OF CHELSEA, MASSACHUSETTS; SAID CARTWRIGHT AND KEYES ASSIGNORS TO SAID POTTER.

## ELECTRIC INCANDESCENT LAMP.

SPECIFICATION forming part of Letters Patent No. 436,316, dated September 9, 1890.

Application filed July 5, 1890. Serial No. 357,871. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN S. POTTER, of Newton, in the county of Middlesex, DAVID J. CARTWRIGHT, of Boston, and BENJAMIN B. KEYES, of Chelsea, both in the county of Suffolk, and all in the State of Massachusetts, have invented a new and useful Improvement in Incandescent Electric Lamps, of which the following, taken in connection with the accompanying drawings, is a specification.

In an application for Letters Patent of the United States filed with this we have described and claimed a socket or holder for incandescent electric lamps, which is so constructed as to afford perfect protection to the conducting-wires from the effects of dampness, provide perfect electrical contacts at the terminals of the lamp when it is placed in the socket or holder, and is adapted to receive either a Thomson-Houston or an Edison lamp, provided that a certain attachment is used when an Edison lamp is placed in the socket.

The invention which forms the subject of the present application relates to this attachment; and it consists in the combination, substantially as and for the purpose hereinafter more fully set forth, with the socket or holder, of a cylindrical shell of sheet metal, which is secured to the recess B of the socket and is provided with an internal screw-thread, which adapts it to receive the metallic cap on the base of the Edison lamp, and is electrically connected with one of the conducting-wires, so that when the lamp is inserted in the socket one of the terminals of the carbon filament is in the circuit.

In the accompanying drawings, Figure 1 is a sectional view of this socket, and Fig. 2 is a sectional view of a modified form of the same.

In both figures the same letters refer to the same parts.

Referring to the drawings, A is a block of some suitable insulating material, preferably porcelain, and B and C are recesses in the same separated by a partition D.

Passing through the center of the partition D is a metallic screw E, which projects above the partition D and is secured in position by means of a disk G of insulating material placed on the bottom of the recess C. To this screw one of the conducting-wires is electrically connected.

In the bottom of the recess B and separated and insulated from the screw may be placed a ring I, as shown in Fig. 1, and this ring is secured to the recess by one or more screws, which pass through the partition into the disk. This ring is electrically connected to the other conducting-wire—as, for example, by attaching the wire to one of the screws.

The device which has been described is similar in construction to that described and claimed in another application for Letters Patent of the United States filed simultaneously with this, and we therefore do not claim this device in this application; but what we do claim is the construction of the device with the attachment for receiving the Edison lamp. As this lamp is constructed one of the terminals of the carbon filament is connected to a cap *g*, of metal, surrounding the base of the lamp and having a screw-thread thereon, and the other terminal is connected to a metallic block *e* on the holder of the base of the lamp.

In order to adapt our socket to the reception of the Edison lamp, we provide a cylindrical shell *f*, of sheet metal, having an internal flange *h* on one end and provided with an internal screw-thread adapted to receive the screw-thread on the base of the Edison lamp. This shell is secured to the socket either as shown in Fig. 1 or in Fig. 2, and is electrically connected with one of the conducting-wires.

In the device shown in Fig. 1 the shell is attached to a bushing *c* of some suitable insulating material, which is screwed on the screw E, while the flange *h* makes contact with the ring I. When the Edison lamp is screwed into the shell *f*, the metal piece *c* rests upon the end of the screw and electrical connections are established through the shell and the screw.

In the device which is shown in Fig. 2 the shell is secured to the recess B by screws, which pass through the flange *h* and is electrically connected to one of the conducting-wires either through the screws or otherwise.

We prefer the construction shown in Fig. 1, for the reason that it permits lamps having the different forms of caps to be used with the same socket.

Having thus described our invention, what we claim, and desire to secure by Letters Patent of the United States, is—

1. The combination, substantially as and for the purpose set forth, of the block A, of insulating material, provided with the recesses B and C, separated by the partition D, the metallic screw E, passing through the partition D and suitably secured in the recess C and projecting into the recess B, a conducting-wire F, electrically connected to said screw, electrical contacts in the bottom of the recess B insulated from the screw E, a conducting-wire H, electrically connected to said contacts, and the metallic shell *f*, secured to said contacts and electrically connected therewith.

2. The combination, substantially as and for the purpose set forth, of the block A of insulating material, the recess B in the same, the metallic screw E, passing into this recess, the conducting-wire F, electrically connected to this screw, a metallic contact I on the bottom of the recess B and insulated from the screw E, the conducting-wire H, electrically connected to this contact, the shell *f*, of sheet metal, provided with an internal flange *h*, and the bushing *c*, of insulating material, fixed on the shell *f* and provided with a perforation for the reception of the screw E.

In testimony whereof we have signed our names to this specification, in the presence of two subscribing witnesses, on this 10th day of June, A. D. 1890.

JOHN S. POTTER.
DAVID J. CARTWRIGHT.
BENJAMIN B. KEYES.

Witnesses:
FRANK G. PARKER,
ALEX. L. HAYES.