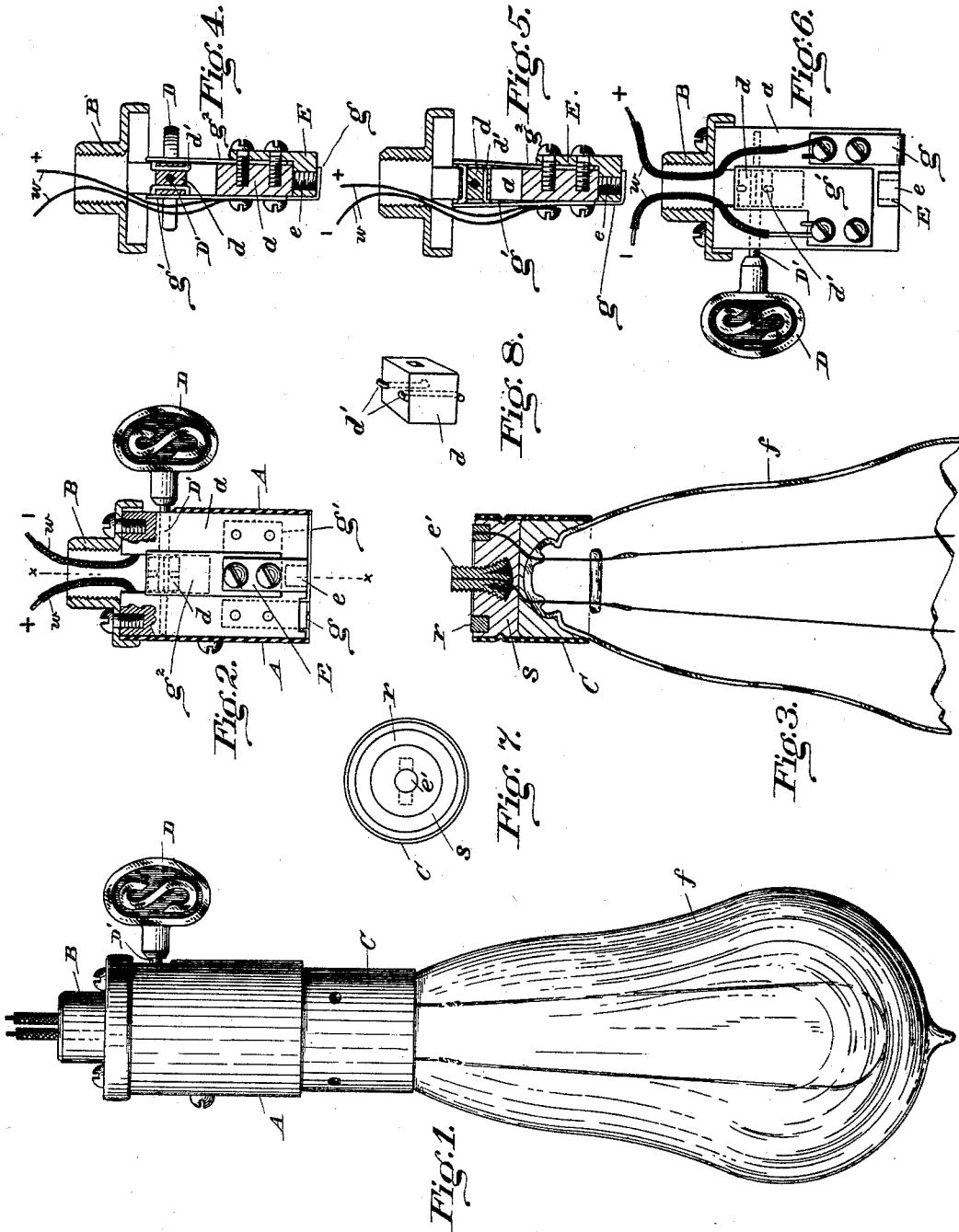


(No Model.)

W. L. SILVEY.
INCANDESCENT LAMP SOCKET.

No. 467,958.

Patented Feb. 2, 1892.



Attest.
C. W. Degart.
Clerk

Inventor
William L. Silvey.

UNITED STATES PATENT OFFICE.

WILLIAM L. SILVEY, OF LIMA, OHIO.

INCANDESCENT-LAMP SOCKET.

SPECIFICATION forming part of Letters Patent No. 467,958, dated February 2, 1892.

Application filed May 17, 1889. Serial No. 311,196. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. SILVEY, a resident of Lima, in the county of Allen and State of Ohio, have invented certain new and useful Improvements in Incandescent-Lamp Sockets, of which the following is a specification.

My invention relates, principally, to that class of sockets or holders in which there is a double make and break in the circuit when the key is turned, at the same time to make an apparatus that is strong and simple, not liable to get out of order, and one to which a lamp is easily attached.

Referring to the accompanying drawings, which are made a part hereof, in which similar letters refer to similar parts, Figure 1 is a full-sized view of the holder with the lamp attached and showing the thumb-key D with the distinguishing-mark S cast therein. Fig. 2 is a vertico-longitudinal view of the working mechanism, looking from the rear or left-hand side. Fig. 3 is a sectional view of the globe *f* and cap C along the same sectional line as in Fig. 2. Fig. 4 is a vertical section of Fig. 2 along the dotted line *x x*, showing the key D turned so that the lamp is switched off. Fig. 5 is the same mechanism as shown in Fig. 4, except in this view the key D is turned so that the lamp-circuit is closed. Fig. 6 shows a front view of the working mechanism in order to show the attachment of the circuit-wires *w*. Fig. 7 is a top view of the cap C, showing the parts in position; and Fig. 8 shows the switch-block *d* with the circuit-closing pins *d'* in position, shown partly by dotted lines.

The frame-work of the machine consists of a piece of vulcanized rubber or fiber or other insulating substance *a*, about one and one-half inches long, one inch wide, and one-fourth inch thick. The upper part of this piece of material has a piece milled out of it about three-eighths inch wide and extending down into the body of the piece about three-fourths of an inch. When this has been done, the material has nearly the shape of the letter U, the two limbs extending upward. There is now a small notch milled out of the lower end for the reception of the L-shaped attachment piece E. This piece is let into the fiber to keep it steady, but as a further help it is held

firmly against the side of the fiber plate by two screws. These screws also serve to hold one end of the flat spring *g*². On the opposite side of the fiber frame *a* is attached a second spring *g'* by two screws, which pass through a wing and are tapped into it at one side, as shown in Fig. 6. On the same side is a second spring *g*, which serves to make electrical contact between one end of the leading-in wires and the ring *r*, secured in the lamp-cap. One side of the lamp-wires is also attached to the ring *r* and the other to a centrally-located screw-stud *e*. This screw-stud *e* is flattened, so that it will not turn in the insulating material S, which is preferably cast around it and the ring *r*. This insulating material is preferably cement, brimstone, or some substance of a like nature that will become liquid and afterward harden. However, it may be other substances that will be pressed in by hydraulic pressure, as it is necessary that the parts be substantial. The cap when finished is attached to the globe *f* in the ordinary way by a mixture of plaster-of-paris or other substance that will harden when it dries. The lamp *f* and cap C are attached to the socket by the stem *e*, which is screwed into the L-shaped plate E in threaded hole *e* and turned up until the ring *r* and the spring *g* come into a firm rubbing contact, when both sides of the lamp-circuit are closed. Into the milled slot in the upper part of the fiber *a* a small block *d* is mounted and free to turn on a small squared stem *D'*, to which a thumb-plate D is attached. This small insulating-block *d*, in addition to having the central hole through which the rotative stud *D'* passes, also has two holes drilled at right angles to the first, into which two pieces of wire *d'* are driven and turned down at the points, as shown in Fig. 8. The office of this small block is to open and close the electrical circuit, thereby turning on or off the electric current into the globe and filament. By rotating the key so that this fiber block stands as shown in Fig. 4 the continuity of the electric circuit is broken and there is no light; but by turning the key as shown in Figs. 1, 2, 4, and 5 the electric circuit is closed and the lamp will burn.

I will now describe the flow of the current. The electric circuit being closed, as shown in

Fig. 5, the current enters at the positive wire *w*, passes thence to the contact-spring *g*, thence to the ring *r* and carbon filament, thence by screw-stem *e* to L-plate, thence to flat spring *g*², thence to the insulating contact-block and contact-studs *d d'*, thence to spring *g*, to outgoing wire *w*, called the "negative wire," and out. Should it become desirable to turn off the light, the key is turned to stand crosswise, as shown in Fig. 4, and the continuity of the circuit is broken at the two contact-springs *g'* and *g*². This breaking the circuit at the two points prevents forming an arc, which tends to wear away the metal, and consequently I reduce the liability of the apparatus getting out of order to a minimum, the object all along having been to make a very effective and at the same time a very simple apparatus. After all the parts are properly assembled there is attached a cap B for attaching the holder to an electrolizer or other

fixture, and a case A, of a plain but neat design, for covering up the entire working mechanism and preventing it from being injured and to keep the dirt and dust away.

Having fully described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

The combination, with an incandescent lamp globe *f*, of the cap consisting of the parts CS *r e'*, mounted on and forming a cap thereto, the holder or socket consisting of the cap B, case A, U-shaped insulating-piece *a*, to which are secured the springs *g g' g*², L-shaped screw-plate E, and key and stud D D', on which the block *d* and studs *d'* are mounted and whereby they are rotated, as specified.

WILLIAM L. SILVEY.

Witnesses:

J. H. ROSE,

R. C. WARNER.