No. 794,458. PATENTED JULY 11, 1905.

L. C. GOLLATZ.

INCANDESCENT ELECTRIC LAMP SOCKET.

APPLICATION FILED DEC. 14, 1904.

Fig. 1.

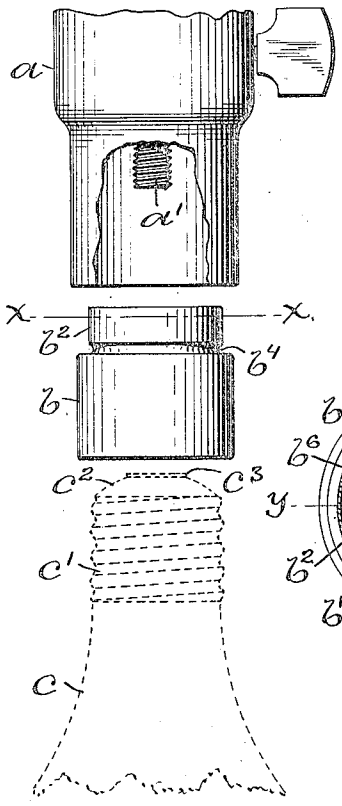


Fig. 2.

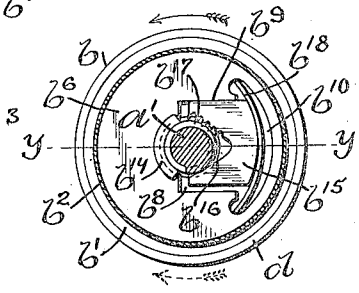


Fig. 3.

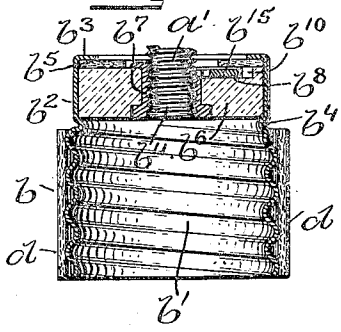


Fig. 4.

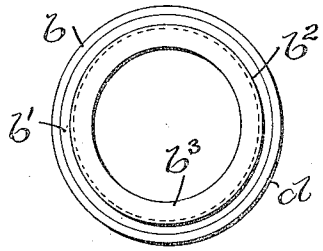


Fig. 5.

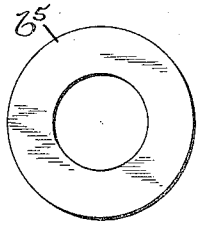


Fig. 6.

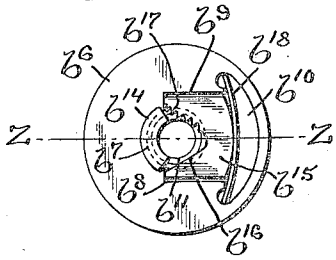
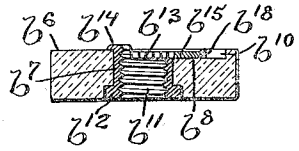


Fig. 7.



WITNESSES:

Chas. H. Luther Jr.

Ada E. Hagerty.

INVENTOR:

Louis C. Gollatz

by Joseph A. Miller & Co.

ATTORNEYS.

No. 794,458. Patented July 11, 1905.

UNITED STATES PATENT OFFICE.

LOUIS C. GOLLATZ, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO PROVIDENCE GAS BURNER CO., OF PROVIDENCE, RHODE ISLAND.

INCANDESCENT-ELECTRIC-LAMP SOCKET.

SPECIFICATION forming part of Letters Patent No. 794,458, dated July 11, 1905.

Application filed December 14, 1904. Serial No. 236,845.

To all whom it may concern:

Be it known that I, LOUIS C. GOLLATZ, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Incandescent-Electric-Lamp Sockets, of which the following is a specification.

This invention has reference to an improvement in incandescent-electric-lamp sockets, and more particularly to an improvement in adapters for incandescent-lamp sockets, whereby an obsolete form of socket is made adaptable to a modern form of lamp-base.

In an obsolete form of socket having a screw-threaded central stem the lamp-base having a screw-threaded central hole was secured to the socket by screwing the lamp-base onto the stem of the socket. This form of lamp-base has been discarded. The present form of lamp-base consists of a screw-threaded shell having a cap of insulating material in the center of which is a metal contact-plate. Adapters as heretofore constructed consisted of a screw-threaded shell adapted to receive the base of a modern lamp and having an insulated end in the center of which is a screw-threaded sleeve adapted to screw onto the stem of the obsolete form of socket, thus adapting the obsolete form of socket to the modern lamp. In practice it has been found that the friction of these adapters on the lamp-base is greater than the friction on the stem of the socket, causing the adapters to unscrew from the sockets when a broken lamp is removed from the socket and when not noticed would be thrown away with the broken lamp or would cause considerable trouble and annoyance to the user in removing the adapter from the lamp and securing it to the socket again.

The object of my invention is to permanently secure an adapter to an obsolete form of incandescent-electric-lamp socket.

My invention consists in the peculiar and novel construction of an adapter for securing a modern form of incandescent electric lamp to an obsolete form of socket, whereby the adapter is permanently secured to the socket and the lamp can be easily removed from the adapter without the liability of removing the adapter from the socket, as will be more fully set forth hereinafter.

Figure 1 is a side view of an obsolete form of incandescent-electric-lamp socket broken away to show the screw-threaded central stem, an adapter, and the base end of a modern form of incandescent electric lamp in broken lines, showing the adapter in the position for entering the socket and the base end of the lamp in the position for entering the adapter. Fig. 2 is an enlarged transverse sectional view through the adapter, taken on line X X of Fig. 1. Fig. 3 is a vertical sectional view through the adapter, taken on line Y Y of Fig. 2. Fig. 4 is an end view of the shell of the adapter. Fig. 5 is a face view of the insulating-washer of the adapter. Fig. 6 is a face view of the porcelain insulating end of the adapter, showing the means for permanently securing the adapter to the socket; and Fig. 7 is a sectional view of the porcelain end of the adapter, taken on line Z Z of Fig. 6.

In the drawings, a indicates an obsolete form of incandescent-electric-lamp socket; b, my improved socket-adapter, and c a modern form of incandescent electric lamp. (Shown in broken lines in Fig. 1.)

The socket a has the central screw-threaded stem a' for securing an obsolete form of lamp to the socket. This stem a' forms one connection and an insulated ring (not shown) surrounding the stem in the socket forms the other connection.

My improved adapter b consists of a screw-threaded shell b', surrounded by the tubular piece of insulating material d and adapted to receive the base of a modern lamp c and having a contracted end b^2, with the inwardly-turned circular lip b^3, an insulating-washer b^5, a porcelain end b^6, having the central hole b^7, the off-center square cavity b^8, forming the side wall b^9 and merging into the semicircular cavity b^{10}, an internal screw-threaded sleeve b^{11}, adapted to screw onto the stem a' of the socket and having the head b^{12}, the cut-away portion b^{13}, forming the lip b^{14}, a locking-plate b^{15}, shaped to approximately fit the cavity b^8

and having the V-shaped notch b^{16}, on one side of which are the teeth b^{17}, and a bow-spring b^{18}.

The sleeve b^{11} is secured in the central hole b^7 of the porcelain end b^6 by the head b^{12}, countersunk in the porcelain end, and by turning the lip b^{14} over and onto the porcelain end, as shown in Fig. 7. The locking-plate b^{15} is now placed in the cavity b^8 in a position for the V-shaped notch b^{16} to straddle the hole in the sleeve b^{11}, as shown in Fig. 6. The bow-spring b^{18} is now placed in the semicircular cavity b^{10} in a position for the ends of the spring to hold in the ends of the cavity and the center of the spring to bear on the locking-plate b^{15}, as shown in Fig. 6. The porcelain end b^6 is now placed in the contracted end b^2 of the shell, with the washer b^5 intermediate the lip b^3 and the locking-plate in the porcelain end and secured by spinning the beading b^4 around and under the porcelain end, as shown in Fig. 3.

In the operation of securing the adapter b to the socket a by screwing the adapter onto the stem a' the adapter is turned to the right, as shown by the arrow in full lines in Fig. 2. The stem a', passing through the V-shaped notch b^{16} in the locking-plate and the sleeve b^{11}, moves the locking-plate into the semicircular cavity b^{10} against the tension of the spring b^{18}. As the adapter is screwed to the right to its limit the stem a' acts on the teeth b^{16} of the locking-plate to force the locking-plate into the semicircular cavity b^{10} against the tension of the spring b^{18}. A reverse movement of the adapter or turning the adapter to the left, as shown by the arrow in broken lines in Fig. 2, would force the locking-plate b^{15} against the side wall b^9 of the cavity b^8 and the teeth b^{16} on the locking-plate into the stem a', thus preventing the unscrewing of the adapter and permanently securing the adapter to the socket.

The modern form of lamp c has the screw-threaded shell c', the porcelain cap c^2, and the contact-plate c^3, secured in the center of the cap forming the base of the lamp, as shown in broken lines in Fig. 1. The sleeve b^{11} of the adapter engaging with the stem a' of the socket forms one connection and the lip b^3 of the adapter engaging with the ring (not shown) in the socket a forms the other connection for the adapter. The contact-plate c^3 on the base of the lamp c engaging with the sleeve b^{11} of the adapter forms one connection and the screw-threaded shell c' of the lamp-base screwing into the shell b' of the adapter forms the other connection for the lamp.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. An adapter for electric-lamp sockets having a screw-threaded shell, a screw-threaded central sleeve for engaging the central stem of a Thomson-Houston socket, a locking-plate having teeth, and means for moving said locking-plate bodily to engage with the stem, as described.

2. The combination with an electric-light socket having a screw-threaded stem, of an adapter b consisting of a screw-threaded shell b' surrounded by insulating material d and having the contracted end b^2, the lip b^3 and the beading b^4, an insulating-washer b^5, a porcelain end b^6 having the central hole b^7, the square cavity b^8 forming the side wall b^9 and merging into the semicircular cavity b^{10}, a screw-threaded sleeve b^{11} having the head b^{12}, the cut-away portion b^{13} forming the lip b^{14}, a locking-plate b^{15} shaped to approximately fit the cavity b^8 and having the V-shaped notch b^{16} on one side of which are the teeth b^{17} and a bow-spring b^{18}, as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LOUIS C. GOLLATZ.

Witnesses:
ADA E. HAGERTY,
J. A. MILLER, Jr.