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T. B. H. VOGT

LOCKING ATTACHMENT FOR INCANDESCENT LAMPS

Filed April 2, 1921

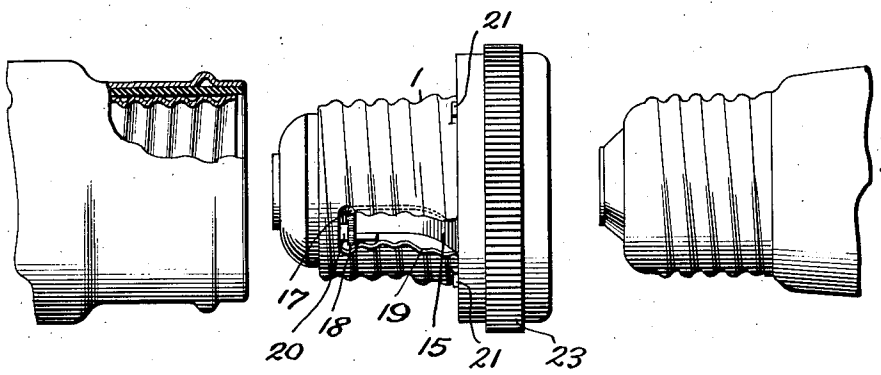


Fig. 1.

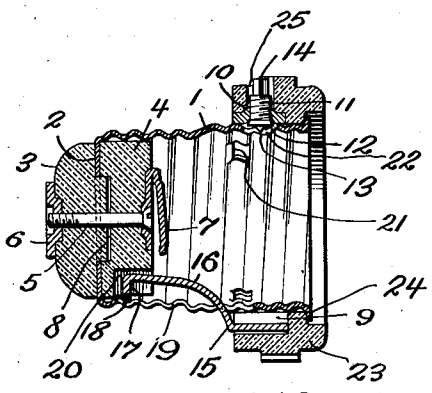


Fig. 2.

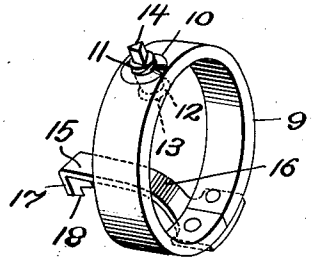


Fig. 3.

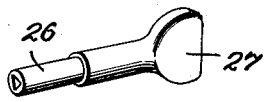


Fig. 4.

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UNITED STATES PATENT OFFICE.

THEODORE B. H. VOGT, OF PASSAIC, NEW JERSEY, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

LOCKING ATTACHMENT FOR INCANDESCENT LAMPS.

Application filed April 2, 1921. Serial No. 457,991.

This invention relates to incandescent electric lighting, and more especially to means for preventing theft of incandescent lamps from their sockets or other installation holders.

There are at the present time on the market several forms of lock sockets, but their installation requires more or less expert knowledge not possessed by the public generally and as a consequence the use thereof has been limited.

The object of my invention is to provide an attachment, which may be applied to the ordinary lamp socket or receptacle by merely inserting it therein in the manner of inserting the ordinary lamp, which may be removed from the socket with the same facility, to which the lamp may be locked and unlocked by simple manipulation, and which may be manufactured at low cost.

One form of my invention is illustrated in the accompanying drawing, in which Fig. 1 is a side elevation of the locking attachment and fragmentary portions of a standard socket and lamp base; Fig. 2 is a longitudinal section of the attachment; Fig. 3 is a perspective view of certain details of construction thereof, and Fig. 4 is a perspective view of the key employed.

The locking attachment shown in the drawing comprises a body portion in the form of a cylindrical screw shell 1 with an inturned flange 2 at its inner end. The inner portion of the threaded shell has an external diameter corresponding to the internal diameter of the threaded contact shell of the socket and the outer portion thereof has an internal diameter corresponding to the threaded lamp base.

On opposite sides of the inturned flange 2 are insulating washers 3, 4 clamped in place by an axial screw 5 which also connects an external center contact 6 in the form of a metal nut and an internal center contact 7 in the form of a leaf spring. In order to prevent the insulating washers 3, 4 from turning relative to the screw shell 1, one is provided with a non-circular projection 8 extending through a similarly shaped opening in the flange 2 and the other washer is provided with a recess for the reception of the projection 8.

About the outer portion of the screw shell 1 is a stout metal ring 9 having a cupped out portion 10 in one side through which is a screw-threaded hole for the reception of a radial set screw 11.

The set screw 11 has a head 12 near its inner end in the form of a bevelled peripheral flange which serves to prevent the screw from being backed entirely out of the ring 9. The inner end of the screw is formed into a sharp conical spur 13, while the outer end 14 is made polygonal or other suitable shape for the reception of a key whereby the screw may be operated.

The ring 9 has attached rigidly, at right angles thereto, a spring arm 15 bent to form a cam surface 16 and has an out-turned point 17 provided with sharp ratchet teeth 18.

The screw shell 1 is provided in one side with a longitudinal slot 19 which extends nearly to its inner end and the insulating washer 4 has a peripheral rectangular notch 20 in alignment with the shell slot 19. When the metal ring is assembled on the screw shell 1 the spring arm extends through the slot 19 and its end lies between the walls of the rectangular notch 20 in the insulating washer with the ratchet teeth 18 normally positioned within the periphery of the screw shell.

The screw shell 1 has a plurality of out-turned fingers 21 struck up therefrom in position to engage the inner edge of the metal ring and opposite the set screw 14 it has an aperture 22 to permit the screw to pass freely therethrough.

In order to insulate and provide a safe hand hold upon the attachment, a molded ring 23 of compound or ceramic material is placed or molded in position over the outer portion of the screw shell 1 and the metal ring 9 and is retained in place by its engagement with the edge and side walls of the metal ring 9 and a peripheral flange 24 spun at the end of the screw shell. The insulating ring 23 has a radial hole 25 for the free reception of the set screw 11 and a knurled outer surface to afford a good hand hold.

The key consists of a metal shank 26 with a recess at its end of a shape to receive the outer end of the set screw 11 and an insulating thumb piece 27 molded thereon.

In applying my attachment to a socket, it is screwed home therein in the same manner that a lamp is inserted and it will be found that the parts are so proportioned

that the insulating ring 23 will repose adjacent the outer end of the socket shell so that all live parts will be protected by insulation. Upon screwing the lamp into the attachment the shoulder of its base engages the cam portion 16 of the spring arm 15, automatically causing its toothed end 18 to move outwardly and engage the wall of the screw shell of the socket and positively lock the attachment to the socket. After the lamp has been screwed home in the attachment, the set screw 11 is turned home by means of the key causing the spur 13 to enter the metal base of the lamp so that the latter may not be turned relatively to the attachment until the set screw is backed off. It will be noted that the lamp when in place in the attachment is displaced axially from the position occupied by it when screwed directly in the socket only the width of the insulating ring 23.

While I have shown and described the best form of the attachment known to me, it is to be understood that my invention is not restricted to that particular embodiment.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. A locking attachment for incandescent lamps comprising a metal sleeve threaded at one end to enter a socket and at the other end to receive a lamp, a locking member carried by said sleeve actuated by the insertion of the lamp to positively engage said socket, and manually controlled means to lock the lamp to said sleeve.

2. A locking attachment for incandescent lamps comprising a metal sleeve of two diameters adapted at the smaller end to enter a socket and at the other end to receive a lamp, a locking arm carried by said sleeve and extending inside thereof and adapted to be projected by the insertion of the lamp.

3. A locking attachment for incandescent lamps comprising a metal sleeve having a slot in one side and an insulated center contact at one end, a locking arm disposed in the slot of said sleeve in a position to be projected by the insertion of a lamp, means for locking the lamp to said sleeve, and an insulating hand hold about the outer end of said sleeve.

4. In a locking attachment for incandescent lamps comprising a metal sleeve adapted to enter a socket and to receive a lamp, a reinforcing ring about one end of said sleeve having a radial set screw therein, and a spring arm carried by said ring and having a part extending within said sleeve and provided with gripping means at its free end.

In witness whereof I have hereunto set my hand.

THEODORE B. H. VOGT.