April 9, 1940. J. C. LAMPE 2,196,635

DEVICE FOR INSTALLING AND REMOVING ELECTRIC LIGHT BULBS

Filed May 2, 1938

Fig. 1.

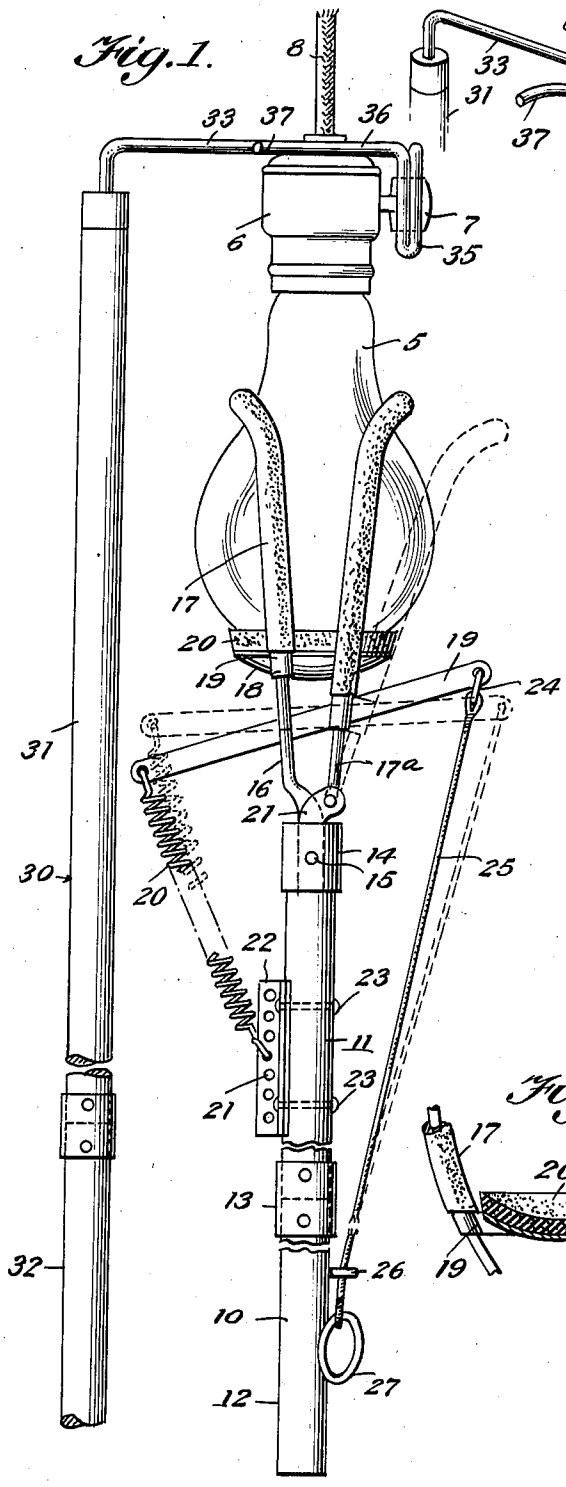


Fig. 4.

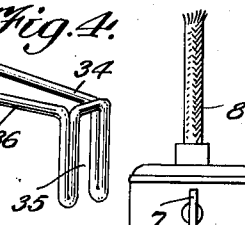


Fig. 2.

Fig. 3.

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DEVICE FOR INSTALLING AND REMOVING ELECTRIC LIGHT BULBS

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2 Claims. (Cl. 294—20)

My invention relates to a device of installing and removing electric light bulbs and more particularly to that class for installing and removing bulbs in remote locations.

One of the principal objects of my invention is to provide a bulb installing and removing device so constructed and arranged that a bulb may be easily installed and quickly removed from sockets located in remote locations.

Another object of my invention is to provide a device of the above described character capable of accommodating bulbs of various sizes for installing and removing the same from electric light sockets.

A further object of my invention is to provide a device of the above described character having auxiliary means for preventing movement of the socket during the installation or removal of the bulb.

A still further object of my invention is to provide a device of the above described character which is extremely simple in construction, durable in use, efficient in operation and economical in manufacture.

Other objects and advantages will be apparent from the following description, appended claims and annexed drawing.

Referring to the drawing wherein like reference characters designate like parts throughout the several views:

Figure 1 is a side elevation of my invention illustrating the same in connection with an electric light bulb secured in a socket supported from a flexible electrical conduit.

Figure 2 is a front elevation thereof.

Figure 3 is a detail sectional view illustrating a seat for supporting the lower portion of the bulb.

Figure 4 is a detail perspective view of the member for maintaining the socket against movement during the installation or removal of a bulb therefrom.

In teaching my invention there is illustrated an electric light bulb 5 secured within a socket 6 equipped with the usual switch provided with an operating key 7 extending through the side of said socket. The socket and bulb are supported in suspended relation by a flexible conduit 8 of ordinary construction.

For the purpose of removing the bulb 5 from the socket 6 or installing a similar bulb, I provide a handle 10 having upper and lower sections 11 and 12 respectively connected together by a sleeve 13. The upper end of the section 11 has secured thereto a collar 14 by means of a rivet 15 extending therethrough. Secured within the collar and said upper end by means of the rivet 15 are the lower ends of a stationary jaw 16, the same being of a loop configuration for engaging and surrounding a portion of the bulb 5 as clearly illustrated in the drawing. Said jaw 16 is preferably constructed of a length of wire or other similar material and is provided on the upper section thereof with a covering 17 of cushioning material for engaging with the bulb whereby to protect the bulb from breakage by contact therewith.

Between the upper and lower sections of the jaw 16 there is provided a concave shaped seat 18 connected to the sides of the jaw as at 19. Said seat is provided with cushioning material 20 for engaging and supporting the lower portion of the bulb.

Extending within the upper end of the section 11 and sleeve 14 and secured therein by the rivet 15 is a pair of spaced bracket arms 21 having pivoted to the outer ends thereof a movable jaw 17a of a construction and configuration similar to the stationary jaw 16 and said movable jaw engages the opposite portion of the bulb 15. The lower ends of the jaw 17a are connected together by a brace 18a spaced below the seat 18 in a manner to prevent engagement therewith upon operation of the movable jaw. Secured to the central portion of the brace 18a and extending at right angles thereto is a cross arm 19, one end of which has connected thereto the upper end of a coil spring 20, the lower end of said coil spring being connected through one of a plurality of apertures 21 formed in an angle bar 22 secured to the handle subjacent the collar 14 by means of rivets 23.

The opposite end of the cross arm has secured thereto a ring 24 which has secured thereto the upper end of a flexible pull member 25 for instance a cable or chain. The lower end of the pull member 25 is trained through an eye member 26 carried on the lower end of the lower section 12 of the handle 10. Said lower end of said pull member is provided with a finger ring 27 whereby the same may be readily operated.

An auxiliary handle 30 comprising upper and lower sections 31 and 32 respectively is equipped on the upper end with a laterally extending socket engaging member 33. Said socket engaging member is fashioned with a horizontally extending arm 34 having an outer right angularly loop shaped disposed section 35 terminating in a horizontally extending arm 36 spaced from the arm 34 and fashioned with an arcuate end 37.

The arms 34 are adapted to embrace the electrical conduit 8 and upper section of the socket 6 and the section 35 extends about the key 7. When so arranged, the arms 34 and 36 and section 35 through the medium of the handle 30 serve to hold the socket 6 against rotation while the bulb 5 is being inserted or unscrewed from the socket.

From the foregoing it will be apparent that upon actuation of the cross arm 19 through the medium of the pull member 25, the movable jaw is operated to permit insertion of a bulb between both of the jaws or to disengage the jaws from a bulb and that the seat 18 serves to support the bulb while the same is clamped between the jaws by the action of the spring 20.

What I claim is:

1. A device of the character described, comprising, a handle, a stationary jaw fixed on said handle and adapted to circularly engage the upper portion of the lower globose section of a pyriform electric light bulb, a cup-shaped seat secured to said stationary jaw for receiving therein the lower portion of said section, a movable jaw pivoted to said handle and adapted to circularly engage said upper portion and coact with said stationary jaw to circumsept said section therebetween, a spring connected to said movable jaw and said handle for moving said movable jaw towards said stationary jaw to effect coaction between the jaws and the arcuate face of said section in a manner to urge said section within said seat and clamp said bulb within the seat and between said jaws, and means connected to said movable jaw for operating the latter away from said stationary jaw.

2. A device of the character described, comprising, a handle, a stationary jaw fixed on said handle and of a looped configuration for circularly engaging the upper portion of the lower globose section of a pyriform electric light bulb, a covering of cushioning material carried by said stationary jaw, a cup-shaped seat secured to said stationary jaw and equipped with cushioning material adapted to receive therein the lower portion of said section, a movable jaw pivoted on said handle and of a looped configuration, a covering of cushioning material carried by said movable jaw, said movable jaw adapted to circularly engage said upper portion and coact with said stationary jaw to circumsept said section therebetween, a cross arm secured to said movable jaw, a spring connected to said cross arm and said handle for moving said movable jaw towards said stationary jaw to effect coaction between the jaws and the arcuate face of said section in a manner to urge said section of said bulb within said seat and clamp said bulb within the seat and between said coverings, and a pull member connected to said cross arm for operating said movable jaw in a manner to permit removal and insertion of said bulb between said coverings.

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