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F. W. ERICKSON

1,711,993

SECURITY LAMP GUARD AND HOLDER

Filed June 29, 1927

Fig. 1.

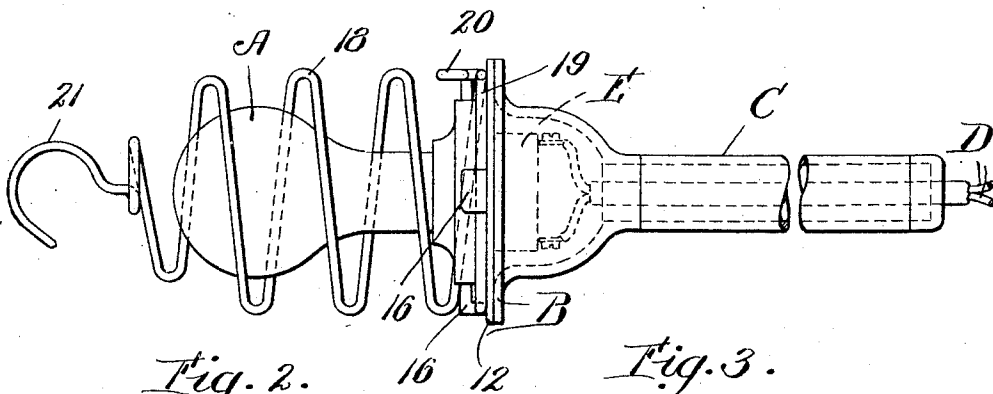


Fig. 2.

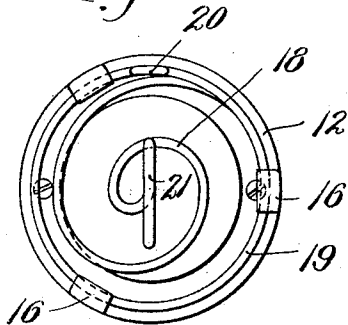


Fig. 3.

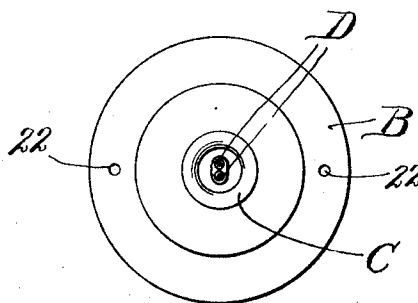


Fig. 4.

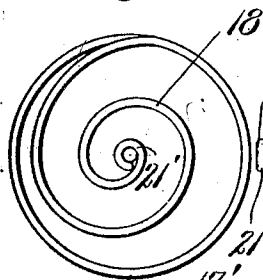


Fig. 5.

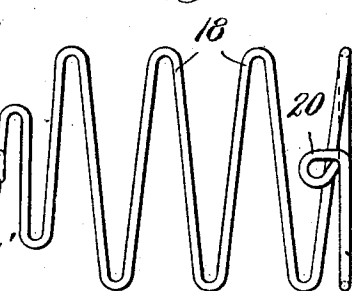


Fig. 6.

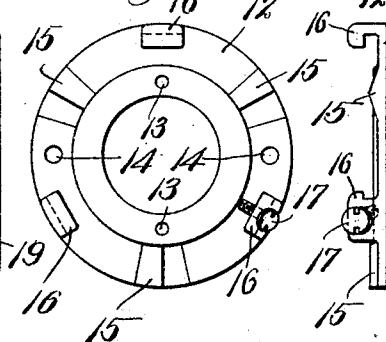


Fig. 7.

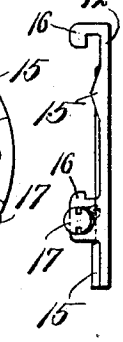


Fig. 8.

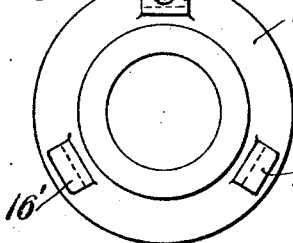
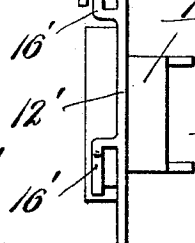


Fig. 9.



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SECURITY LAMP GUARD AND HOLDER.

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This invention relates to devices for protecting incandescent electric lamps, and has particular reference to such guards and holders therefor as will not only protect the lamp fixture from shock and the lamp itself from breakage, but also greatly reduce liability of the lamps being stolen from their needed locations.

In many machine shops and factories it is customary to employ electric lamps enclosed in wire mesh guards, sometimes in fixed locations and sometimes arranged to be portable by being provided with handles with flexible electric wire connections of considerable length. And both types are much used in buildings during the construction thereof.

So far as I am aware, the lamp-enclosing guards as heretofore constructed consist of comparatively soft metal capable of being easily cut to enable the lamp to be removed by any workman who happens to have a pair of cutting pliers in his possession. While the loss, due to such unauthorized removal of lamps, does not put a heavy burden of expense on the owners of the shops or buildings, a great element of danger exists if a lamp is removed from such locations as stairways or floor openings in a building being constructed. Occasional fatal accidents have been known to occur as the result of such places being left in darkness.

One of the objects of my invention is to provide an electric lamp guard which, while sufficiently resilient to protect the lamp fixture from injurious shock and the lamp from breakage, will be exceedingly difficult to remove or cut by anyone not having special tools in his possession.

With the above-stated object in view, and others which will be evident from the following description, the invention consists in the construction and combination of parts substantially as hereinafter described and claimed.

Of the accompanying drawings:—

Figure 1 is a side elevation of a portable lamp structure having my improvements.

Figure 2 is an end view from the left of Figure 1.

Figure 3 is a view from the right of Figure 1.

Figures 4 and 5 are, respectively, end and side views of a slightly different form of wire guard such as will be suitable for a

lamp that is not portable but is mounted in fixed position and so not needing an end hook.

Figures 6 and 7 are, respectively, face and edge views of the disk or plate which is secured to and covers the usual lamp receptacle.

Figures 8 and 9 are views similar to Figures 6 and 7, but illustrating a slightly different form of lugs carried by the cover plate.

Similar reference characters indicate similar parts or features in all of the views.

Referring to Figure 1, the parts indicated by reference letters are to be understood as illustrating any well-known form of portable or hand manipulated lamp. The lamp bulb A is removably mounted, as usual, the receptacle into which the metal part of the bulb extends being indicated at E. Enclosing the said receptacle E is a housing having a flange B which forms the base for my improved attachments. The usual handle having an insulating sleeve is indicated at C, and the circuit wires at D.

The parts which I shall now describe are securably attachable either to the portable members just described, or to an ordinary outlet box in fixed position. To this end, I employ a disk or plate 12 having a central aperture for the lamp A, said plate having holes such as illustrated at 13, 14, in Figure 6. The face of the plate 12 is formed or provided with a circumferential series of ridges 15 (Figs. 6 and 7) and has, alternating therewith, hook lugs 16 one of which has a screw 17 tapped through it. The head of said screw 17, for a reason presently described, is formed so that it can not be turned by an ordinary screw driver. As illustrated the head of the screw 17 does not have a full or continuous slot, but only two opposite recesses or notches. An ordinary screw can have its head so deformed by welding or up-setting, or such screws can be specially made, to prevent actuation by an ordinary screw driver. The reason for this will be presently explained.

The plate 12 is secured to the flange B of the portable device, by ordinary screws passing through the holes 13, or the holes 14, of the plate, into suitable holes 22 (Fig. 3) of the flange B. Or the plate 12 can be similarly secured to an ordinary outlet box.

The lamp guard 18 is made of hardened

steel wire bent to provide a series of convolutions capable of surrounding the lamp bulb, with a ring-shaped base convolution 19, the diameter of which is such as to provide an opening large enough to permit the guard to be passed over the lamp or bulb A to enable the guard to be locked in place as hereinafter described, said ring or convolution terminating in an angularly bent eye 20 forming a finger piece, the other end of the wire (Figs. 1 and 2) being bent to form a hook 21 by means of which the entire portable device can be hung on any suitable support. If the guard is to be used in connection with a lamp supported in a fixed position instead of being portable, then the hook 21 is unnecessary and the outer end of the guard (its tip) can be formed as a simple flat small eye 21' as illustrated by Figures 4 and 5.

The reason for providing the plate 12 with the two pairs of holes 13 and 14 (Fig. 6) is to enable the said plate and the guard to be attached either to a portable device or to an ordinary outlet box. For the former use, screws are passed through holes 14 of the plate 12 into tapped holes 22 (Fig. 3) of the flange B, while for the latter use, screws can be readily passed through the holes 13 of the plate 12 into holes provided in the face of the outlet box.

To secure the guard 18 to the plate 12, after the lamp A has been fitted to its usual socket, and after partially withdrawing the screw 17 from the one hook lug which carries said screw, the base ring or convolution 19 of the guard is partially compressed by inward pressure exerted on the finger piece 20, and at the same time, or just prior thereto, said base ring is inserted under two of the hook lugs 16 and then permitted to expand to place under the third of said hook lugs. All this is, of course, attainable because of the base ring being resilient. Then, by a special tool, the screw 17 having the mutilated head, is screwed down to its seat against, or so as to lock, the said base ring, thereby making it exceedingly difficult to remove the guard. And since the guard itself is made of material very difficult to cut, unauthorized removal of the lamp bulb is beyond the ability of the ordinary workman.

The object of the ridges 15, alternating with the hook lugs, is to keep the guard securely in place without rattling. As best illustrated by Figure 7, the ridges are of such height or elevation that when the resilient base ring of the guard is fitted to place as just described, it must cross the ridges and be thereby flexed or deflected somewhat out of a flat circle, the resilience of said ring

permitting this effect. In other words, when the base ring 19 (Fig. 5) is in place under the hook lugs 16 and over the ridges 15 (Figs. 6 and 7), the said base ring is pressed and held in a somewhat wavy condition bearing alternately on the ridges and under the hook lugs.

I do not limit myself to a structure having hook lugs which open inwardly or toward the center of the plate 12. In Figures 8 and 9, which illustrate a plate 12' similar to the plate 12 but omitting some of the features shown in Figures 6 and 7, the hook lugs 16' face or open outwardly instead of inwardly, one of said lugs having a locking screw 17'. The resilient coiled hardened steel wire guard 18 of Figures 1, 2, 4 and 5 can be securely connected with such a plate as illustrated by Figures 8 and 9, in the same manner as has been described in connection with Figures 6 and 7, by simply expanding, instead of compressing, the spring base ring 19 in order to locate it under the hook lugs 16'.

Having now described my invention, I claim:—

1. The combination with an electric lamp wire guard having a resilient base ring, of a holder for said guard, said holder having a series of hooks engaging said ring, the resilience of said ring enabling it to be assembled with said hooks and to then remain engaged thereby, means being provided for locking the ring in engagement with the said hooks.

2. The combination with an electric lamp wire guard having a resilient base ring, of a holder having a series of hooks engaging said ring, the resilience of said ring enabling it to be assembled with said hooks and to then remain engaged thereby, one of said hooks having a screw provided with a mutilated head for locking the ring in place.

3. The combination with an electric lamp wire guard having a resilient base ring, of a holder having a series of hooks engaging said ring and having ridges alternating with said hooks, the resilience of said ring enabling it to be assembled with said hooks and to then remain engaged thereby.

4. The combination with an electric lamp wire guard, said guard having a resilient base ring exceeding the diameter of the lamp, of a holder for said guard, said holder having a series of hooks engaging said ring, the resilience of said ring enabling it to be assembled with said hooks and to then remain engaged thereby.

In testimony whereof I have affixed my signature.

FREDERIC W. ERICKSON.