

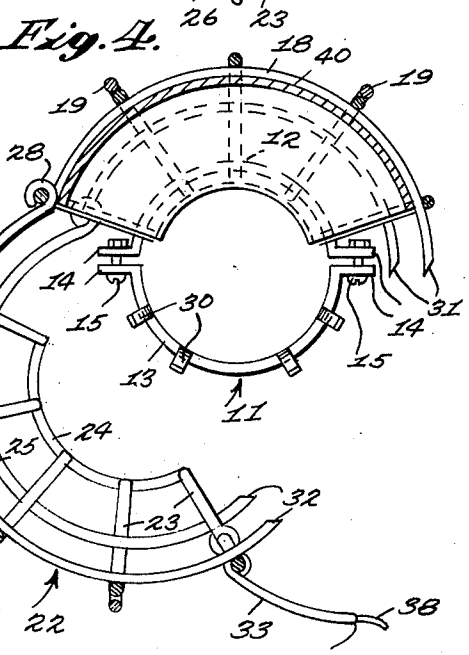
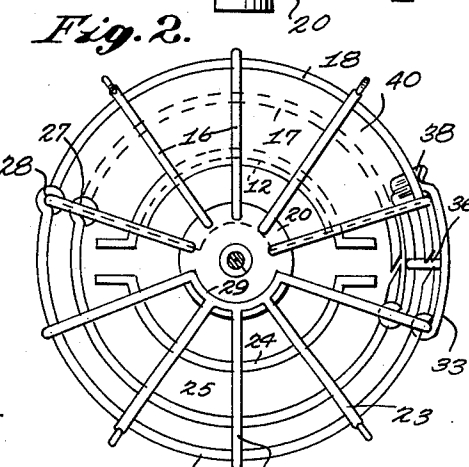
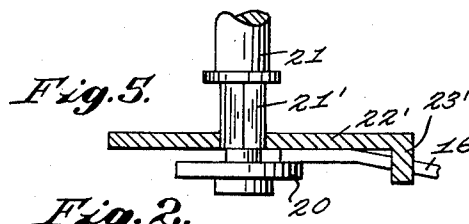
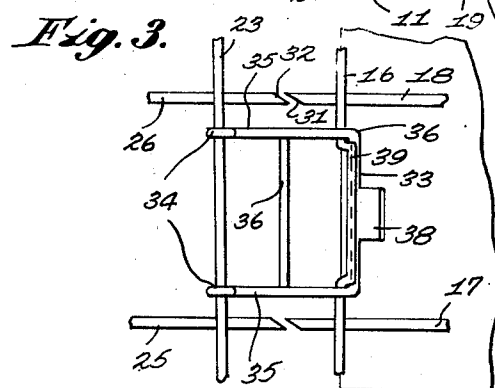
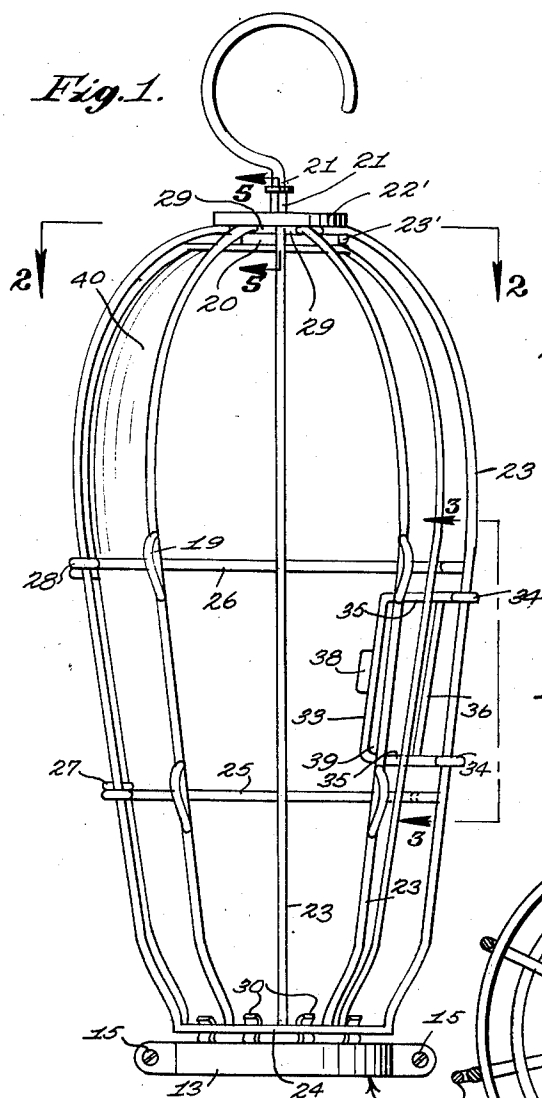
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HINGED LIGHT BULB PROTECTOR

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HINGED LIGHT BULB PROTECTOR

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2 Claims. (Cl. 240—102)

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This invention relates to guard devices for protecting electric lamp bulbs, and more particularly to a lamp guard suitable for use with a trouble lamp.

A main object of the invention is to provide an improved lamp guard for use with a trouble lamp, said guard being very simple in construction, being easy to mount on the socket of the trouble lamp, and being easy to open and close, thereby greatly facilitating the replacement of the electric lamp of the device.

A further object of the invention is to provide an improved lamp guard which is inexpensive to manufacture, which is provided with means for opening and closing the lamp guard in a rapid and convenient manner, and which is very durable in construction.

Further objects and advantages of the invention will become apparent from the following description and claims, and from the accompanying drawings, wherein:

Figure 1 is a side elevational view of an improved lamp guard for use with a trouble lamp, said guard being constructed in accordance with the present invention;

Figure 2 is a cross-sectional view taken on line 2—2 of Figure 1;

Figure 3 is an enlarged fragmentary elevational detail view taken on line 3—3 of Figure 1;

Figure 4 is a horizontal cross-sectional view taken through the lamp guard device of Figures 1 to 3, showing the guard device in an open position;

Figure 5 is an enlarged cross-sectional detail view taken on line 5—5 of Figure 1.

Referring to the drawings, the lamp guard comprises a collar portion 11 adapted to be secured to the handle or socket portion of a trouble lamp assembly of the conventional type, the collar 11 comprising the respective semicircular segments 12 and 13 which are provided at their ends with lugs 14 which are connected by suitable fastening means, such as bolts 15. Secured to the segment 12 outwardly thereof, as by welding, are the upwardly extending, bowed wire support elements 16 defining a concave enclosure, said upwardly extending wire elements being rigidly connected at intermediate points thereon by horizontal, arcuately curved wire members 17 and 18. The alternate welded joints between the upwardly extending wire members 16 and the horizontal, arcuate wire members 17 and 18 may be reinforced by short bridging wires 19 welded across the intersections of the upwardly extending and the horizontally extending wire members on the outside of the concave enclosure above described.

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Welded to the top ends of the upwardly extending wire members 16 is a circular disc member 20 to the center of which is rotatably secured an upwardly extending wire hook member 21.

Designated generally at 22 is a hinged concave wire cage segment which comprises the upwardly extending, bowed wire support elements 23 rigidly connected at their bottom ends to a semicircular wire member 24 and rigidly connected at intermediate portions thereof by horizontal, arcuate wire members 25 and 26. The ends of the wire members 25 and 26 are formed with eye elements 27 and 28 which rotatably embrace the upstanding wire member 16 at the left side of the first-described, concave cage structure, as viewed in Figure 4, said eye elements 27 and 28 engaging immediately above the ends of the horizontal, arcuate connecting wire members 17 and 18, thereby supporting the concave cage structure 22 against downward displacement with respect to the first-described concave cage structure. The top ends of the members 23 are rigidly connected by an arcuate wire member 29 which is adapted to overlap the peripheral portion of the top surface of the disc member 20 when the hinged cage member 22 is swung to the closed position of Figure 2. The collar element 13 has secured thereto the spaced, upwardly projecting, outwardly concaved, resilient fingers or detents 30, spaced along the member 13 in the manner shown in Figure 4, and adapted to resiliently engage the lower arcuate member 24 of the hinged cage element 22 when the cage element is swung to the closed position of Figure 2.

The shank of the hook member 21 is formed above disc member 20 with a squared portion 21' on which is slidably mounted a disc 22' having a square central aperture slidably but non-rotatably receiving the squared shank portion 21'. The disc 22' is provided at its periphery with a depending lug 23' engageable between the upper portions of the wire members 16 or 23 to lock the hook member 21 in a selected rotated position relative to the remainder of the lamp guard. The guard may be rotated to its selected position by elevating disc 22' to disengage the lug 23' from its locking position, illustrated in Figure 5.

As further shown in Figures 1 and 4, alternate intersections of wire members 23 with wire members 25 and 26 are reinforced by bridging elements 19 welded over said intersections outwardly thereof.

As shown in Figures 2, 3 and 4, the abutting ends of the members 17, 18, 25 and 26 are beveled, as shown at 31, 32, whereby said abutting

ends overlap when the cage element 22 is in the closed position of Figure 2. Designated at 33 is a U-shaped bail member of resilient wire which is pivotally secured at the ends of its arms to the upstanding wire member 23 at the free side edge of the pivoted cage element 22, as shown at 34, 34. The intermediate portions of the arms 35, 35 are connected by a crossbar element 36. The arms 35, 35 are arcuately curved and are concaved inwardly, as shown in Figure 4, said arms being sufficiently resilient to flex at times. The support member 16 at the free side edge portion of the first-described, concave cage element is formed with an offset portion 39 adapted to be engaged inside the bight portion of the U-shaped frame member 33 in the manner shown in Figures 1 and 3, whereby the U-shaped element 33 is interlocked with said offset portion 39 to secure the cage elements in closed positions. Secured to the bight portion of the U-shaped member 33 is a tab 38 facilitating the manual flexure of the U-shaped member when it is desired to unfasten the hinged element 22 from the stationary portion of the device.

Designated at 40 is a concave shield of thin metal fitting inside the concave enclosure defined by the wire elements 16, 17 and 18, and rigidly secured therein in any suitable manner. Said shield serves as a guard to protect the eyes of the user of the device from undesired glare from the lamp mounted therein.

It will be readily apparent that the hinged cage section 22 may be readily opened or closed, and that said hinged section will be secured in closed position by the locking engagement of the U-shaped member 33 with the offset portion 39 in the manner shown in Figures 1 to 3. To unlock the hinged section 22, it is merely necessary to exert finger pressure outwardly on the tab 38, while holding the bar member 36, whereby the U-shaped member 33 may be flexed outwardly and the bight portion of said U-shaped member may be disengaged from the offset portion 39, freeing the hinged element 22 for outward swinging and providing access to the lamp bulb contained in the guard device.

While a specific embodiment of a lamp guard for trouble lamps has been disclosed in the foregoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art. Therefore, it is intended that no limitations be placed on the invention except as defined by the scope of the appended claims.

What is claimed is:

1. A lamp guard comprising a first concave cage segment including a wire member extending transversely about and secured to said segment intermediate the ends thereof, a second concave cage segment arranged in face to face abutting relation with respect to said first cage segment and including a wire member extending transversely about and secured to said segment intermediate the ends thereof, said wire members being transversely aligned and connected to-

gether at the ends adjacent to one of the side edges of each cage segment for pivotal movement of said cage segments into and out of face to face abutting relation, a collar encircling one of the corresponding ends of each of said first and second cage segments and fixedly secured to said first cage segment, a resilient detent projecting longitudinally from the portion of said collar contiguous to said one end of said second cage segment and engageable with said one end of said second cage segment when the latter is in its abutting relation with respect to said first cage segment, and interengaging means on the other side edges of said first and second cage segments for holding said segments in face to face abutting relation.

2. A lamp guard comprising a first concave cage segment including a wire member extending transversely about and secured to said segment intermediate the ends thereof, a second concave cage segment arranged in face to face abutting relation with respect to said first cage segment and including a wire member extending transversely about and secured to said segment intermediate the ends thereof, said wire members being transversely aligned and connected together at the ends adjacent to one of the side edges of each cage segment for pivotal movement of said cage segments into and out of face to face abutting relation, a collar encircling one of the corresponding ends of each of said first and second cage segments and fixedly secured to said first cage segment, a plurality of flexible detents projecting longitudinally from the portion of said collar contiguous to said one end of said second cage segment and engageable with said one end of said second cage segment when the latter is in its abutting relation with respect to said first cage segment, a disc arranged transversely of the other corresponding ends of each of said first and second cage segments and fixedly secured to said first cage segment, a hook projecting axially from said disc exteriorly of said cage segments and rotatably supported in said disc, a shield carried by said first cage segment, and interengaging means on the other side edges of said first and second cage segments for holding said segments in face to face abutting relation.

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