

H. HUBBELL.  
DETACHABLE LAMP GUARD REFLECTOR.  
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1,012,554.

Patented Dec. 19, 1911.

Fig. 1

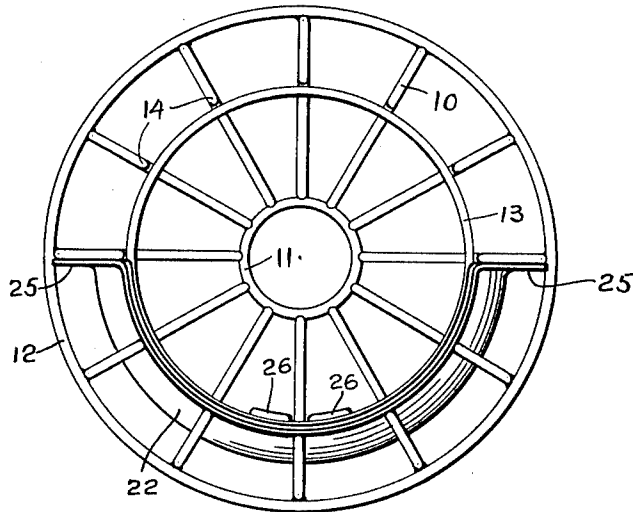
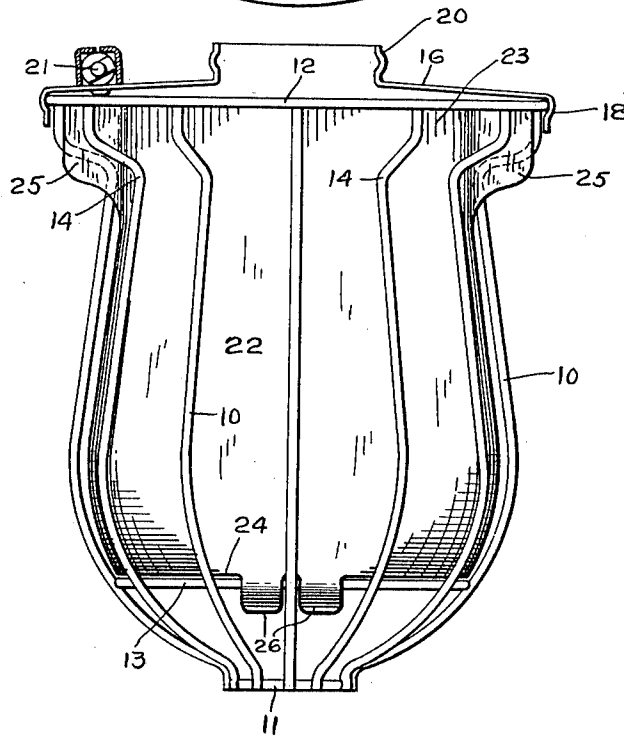


Fig. 2



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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DETACHABLE LAMP-GUARD REFLECTOR.

1,012,554.

Specification of Letters Patent.

Patented Dec. 19, 1911.

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*To all whom it may concern:*

Be it known that I, HARVEY HUBBELL, a citizen of the United States, residing at Bridgeport, county of Fairfield, State of Connecticut, have invented an Improvement in Detachable Lamp-Guard Reflectors, of which the following is a specification.

This invention relates to reflectors for use in connection with incandescent electric lamps and has for its general object to provide a reflector which may be readily applied to incandescent lamp-guards of usual construction.

A more particular object of this invention is to provide a reflector of the character referred to which may be attached to and detached from the lamp guard and which requires no attaching means other than the form of the device itself.

Another object of this invention is to provide a lamp guard reflector which will not obstruct to an objectionable extent the rays of light from the lamp.

A further object of the invention is to provide a lamp guard reflector of simple and inexpensive construction and of neat and attractive appearance, and which is so designed that several will nest closely together for convenience in packing.

These and other objects of the invention, together with means whereby the same may be carried into effect, will best be understood from the following description of one form or embodiment thereof illustrated in the accompanying drawings, in which:

Figure 1 is a bottom plan view and Fig. 2 a side elevation of a lamp guard with the improved reflector applied thereto.

For convenience of illustration the reflector is herein shown as used in connection with a lamp guard of the type shown and described in my prior application filed Nov. 29, 1910, Serial No. 594,691 although it will be obvious that, by making slight changes in the construction shown, the reflector may be equally well adapted for use in connection with lamp guards of other types, and such changes are considered to be within the spirit and scope of the invention, as are also such other changes in form and size as will readily suggest themselves to those skilled in the art.

The lamp guard shown is made of wire, the various parts or elements thereof being secured together in any suitable manner, usually by electric welding. The guard

comprises longitudinal strips or elements 10, a bottom ring 11, a top ring 12, and an intermediate ring 13. The body is of suitable size and shape to inclose the lamp. The longitudinal elements are bent inwardly, as at 14, above the swell of the lamp bulb, and thence outwardly and their ends attached to the top ring. The intermediate ring is usually placed within the longitudinal elements below the swell of the bulb and of said longitudinal elements.

16 denotes a two part locking plate having at its outer edge a flange 18 embracing the top ring 12 and at its inner edge a flange 20 embracing the lamp socket. The two parts of the locking plate are secured together by any suitable means, as, for example, by bolts, one of which is indicated by the numeral 21.

The reflector, indicated as a whole by the numeral 22, comprises a plate, preferably of a concavo-convex form and made of resilient material such as metal providing a reflecting surface on its concave side. The reflector is detachably attached to the lamp guard by being sprung into position therein and is held in place by engagement of its parts with the various parts of the lamp guard. The upper and lower edges of the reflector, as shown, are arranged in substantially parallel planes, the upper edge 23 engaging or lying adjacent to the under surface of the locking plate 16 near the outer edge of the latter, while the lower edge 24 of said reflector lies adjacent to and preferably engages the upper side of the intermediate ring 13. Below its upper edge the outer surface of the reflector engages the inner surfaces of the inwardly bent portions 14 of the longitudinal strips or members, thereby holding the upper end of the reflector at its outer side, the same being held from inward displacement by the engagement of wings or tabs 25 projecting from the lateral edges of the reflector plate with the lateral surfaces of said strips or members. At its lower end the reflector is held against outward displacement by engagement with the inner faces of the strips or members 10 and from inward displacement by wings or tabs 26 projecting from the lower edge 24 and engaging the outer face of the intermediate ring 13. The wings or tabs 25 and 26 as well as holding the reflector in position transversely of the lamp guard serve also to position the same circumferentially thereof. To this end the

tabs 26 are arranged to engage opposite sides of the longitudinal members 10. As the spacing of these members varies somewhat in different guards, but as the stock from which they are made is of a substantially constant diameter, the tabs 26 are preferably spaced apart a distance substantially equal to the thickness of one of said members so as to embrace the same, as clearly shown in Fig. 2. The tabs 26 being made of flexible material may, if desired, be bent around the ring 13 for the sake of additional security.

Inasmuch as the reflector 22 has its lower edge arranged substantially in a plane, said lower edge engaging the intermediate ring 13, it will be seen that the reflector extends for a portion only of the length of the lamp guard so as to leave the lower end of said guard unobstructed, as shown most clearly in Fig. 1. This is of great advantage when the protector is used in connection with a lamp upon a flexible cord in shops, garages, and the like for examining machinery, etc., inasmuch as it permits the light of the lamp to be thrown through the bottom of the guard into places which are difficult of access without the necessity of turning the lamp sidewise into what might be an inconvenient position.

It will be seen that the only parts which project from the body of the reflector plate are the wings or tabs 25 and 26 and that these project outwardly from the edges of the plate and are flat so as to present no obstruction to the nesting of a large number of the reflectors in a relatively small space for convenience in packing.

Having thus described my invention, I claim:

1. The herein described lamp guard reflector comprising a concavo-convex plate of resilient material, the lateral edges of said plate being provided with projecting wings or tabs, the upper and lower edges of said plate lying in parallel planes, and one of said last named edges being provided with one or more projecting wings or tabs.

2. The combination with a lamp guard composed of a plurality of longitudinal strips or elements and a ring connecting said strips or elements of a reflector comprising a plate provided at its lateral edges with wings or tabs engaging said longitudinal strips or elements and at its lower edge with one or more wings or tabs engaging said ring.

3. The combination with a lamp guard

composed of a plurality of longitudinal strips or elements and a ring connecting said strips or elements of a reflector comprising a concavo-convex plate of resilient material provided at its lateral edges with wings or tabs engaging said longitudinal strips or elements and at its lower edge with one or more wings or tabs engaging said ring.

4. The combination with a lamp guard composed of a plurality of longitudinal strips or elements and a ring connecting said strips or elements of a reflector comprising a plate provided at its lower edge with a pair of projecting wings or tabs engaging said ring and lying on opposite sides of one of said longitudinal strips or elements, said tabs being separated by a space substantially equal to the thickness of said strip or element.

5. The combination with a lamp guard comprising a plurality of longitudinal strips or elements having inwardly bent portions of a reflector comprising a concavo-convex plate having a portion engaging the inner surfaces of the inwardly bent portions of said strips or elements and provided at its edges with projecting wings or tabs engaging the lateral faces of said strips or elements.

6. The combination with a lamp guard comprising a plurality of strips or elements, a ring connecting said strips or elements, and a locking plate, of a reflector comprising a plate provided at its lateral edges with projecting wings or tabs engaging said strips or elements, the upper and lower edges of said plate lying respectively adjacent said locking plate and said ring.

7. The combination with a lamp guard comprising a plurality of strips or elements, a ring connecting said strips or elements, and a locking plate, of a reflector comprising a concavo-convex plate provided at its lateral edges with projecting wings or tabs engaging said strips or elements, the upper and lower edges of said plate lying respectively adjacent said locking plate and said ring, and said lower edge being provided with wings or tabs embracing one of said strips or elements.

In testimony whereof I affix my signature in presence of two witnesses.

HARVEY HUBBELL.

Witnesses:

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