Jan. 10, 1933. D. G. SAAF 1,894,227

LAMP SHADE

Filed Dec. 30, 1931 2 Sheets-Sheet 1

Fig. 1.

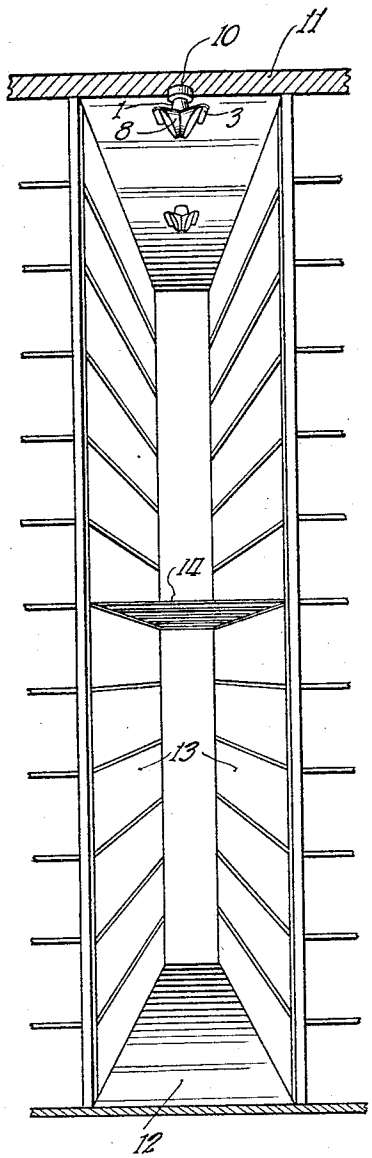


Fig. 2

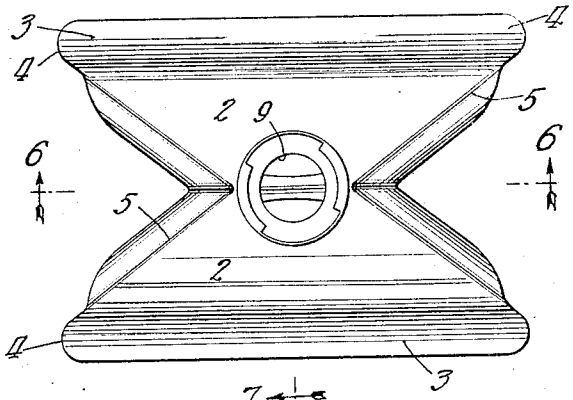


Fig. 3.

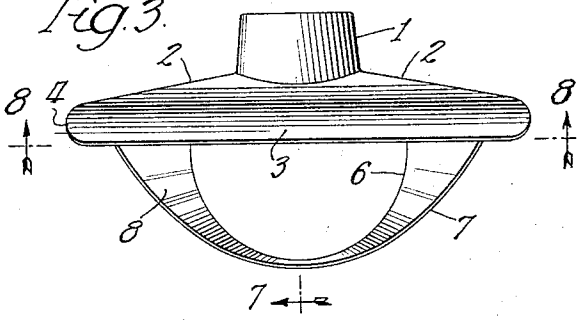
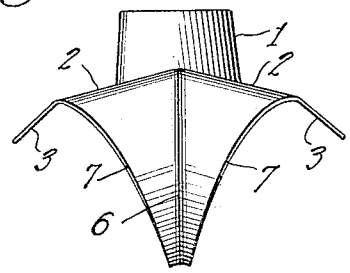


Fig. 4.



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Jan. 10, 1933. D. G. SAAF 1,894,227

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Filed Dec. 30, 1931 2 Sheets-Sheet 2

Fig. 5.

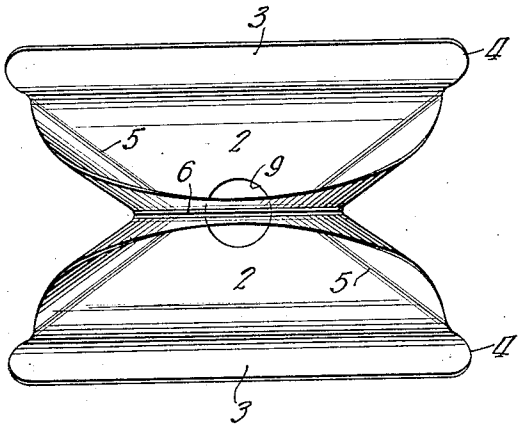


Fig. 7.

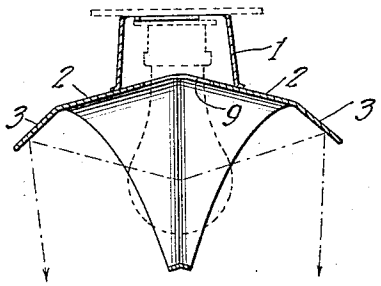


Fig. 8.

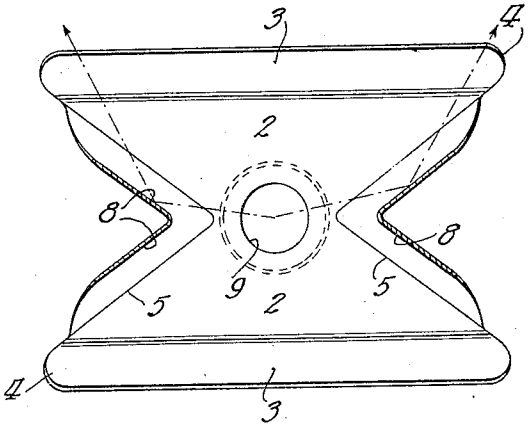
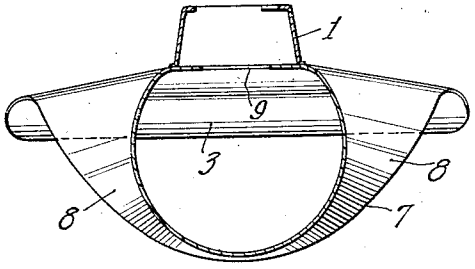


Fig. 6.



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UNITED STATES PATENT OFFICE

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LAMP SHADE

Application filed December 30, 1931. Serial No. 583,842.

This invention relates to improvements in lamp shades and more particularly to that type of shade that acts as a reflector to diffuse light from a lamp in a downward direction.

In libraries or rooms for storing records tiers of book racks or shelves are arranged in parallel rows extending from ceiling to floor and as close together as permissible for an individual to be able to enter and place or remove articles from the shelves. For the sake of economy of space such rooms are at times over twenty feet in height with the stacks about three feet apart and in rooms of this height, it is necessary to arrange one or more cat walks between the racks unless a ladder is provided for use of the individual desiring to reach the higher shelves.

The proper lighting of such an arrangement of stacks of considerable height and close together, so that the contents of all the shelves from the uppermost to lowermost are clearly visible, is quite a problem. It is an object of this invention to provide a shade for a lamp, or series of lamps, that may be secured to the ceiling in the narrow passageways between the stacks so constructed as to direct the light therefrom downward on each stack face from ceiling to floor and, at the same time, prevent the glare of the light from blinding or inconveniencing the individual who may desire to remove an article from a shelf and inspect the same before removing from the room.

With these and other objects in view, reference is made to the accompanying sheets of drawings which illustrate an embodiment of a preferred form of this invention with the understanding that minor detail changes may be made without departing from the scope thereof.

In the drawings:

Figure 1 is a view in perspective of an application of this improved shade between book stacks arranged close together and of considerable height.

Figure 2 is a top plan view in detail of the improved shade.

Figure 3 is a view in side elevation of same.

Figure 4 is a view in end elevation of same.

Figure 5 is a bottom plan view of same.

Figure 6 is a longitudinal central vertical sectional view of Figure 1.

Figure 7 is a transverse central vertical sectional view of Figure 1.

Figure 8 is a view taken in section on the line 8—8, Figure 3 looking in the direction of the arrows.

A preferred embodiment of this invention, as illustrated upon the drawings, includes a shade preferably of metal enameled white upon the interior or reflecting surfaces having a centrally located conical or cylindrical upwardly projecting bracket engaging means 1, which, in this case, is provided with an inturned flange adapted to engage a socket support, not shown, but any means of attachment may be employed. In the top plan view the shade is of approximately rectangular shape with the body of opposite ends drawn downwardly and inwardly from the corners to the center, as hereinafter described. On each side of the longitudinal center line the surfaces 2 are inclined downwardly at a slight angle, approximately 22½ degrees, to the horizontal and terminate in flat parallel portions 3 inclined at an angle, approximately 22½ degrees, to each side surface 2, as shown.

It is preferable to round the opposite ends 4 of the opposing flat surfaces 3 on a circle tangential to each of the longer sides. The body of the ends of the shade is bent downwardly and inwardly from the upper surfaces 2 on a line 5 extending tangential from each of these rounded ends 4 to a point adjacent the longitudinal center line on the corresponding sides of the circular base of the bracket engaging means 1. In so doing the metal of each end is so drawn that the metal along the prolongation of the longitudinal center lines in each end meet under the center of the shade and are welded or joined on the arc of a circle 6, the diameter of which is approximately the distance between the adjacent sides of the flat surfaces 3. The body so drawn on each side of each end is cut away on the arc of a circle 7 from the juncture of each bend 5 and the flat surface 3 to the ends which are joined under the center of the shade, thereby providing two con-

tinuously curved surfaces 8 depending from and forming a continuation of the upper surfaces 2 of the shade on each side of a vertical plane passing through the longitudinal center line of the shade, and extending below the metal along the center line on the arc 6 at the meeting of the ends, as shown in Figures 4 and 6.

An aperture 9 is formed in the center of the body of the shade for the insertion of the customary screw threaded base of an electric light bulb into a commercial socket, not shown, which may be within the bracket engaging means 1. The particular manner in which such socket is supported or the manner in which the shade is supported about or suspended from the socket is immaterial and forms no part of this form of invention. Figure 1 demonstrates a practical application of this improved shade and illustrates a commercial condulet box 10 imbedded in the ceiling 11 of the room to which the lamp locket is attached and from which the shade is supported.

Figure 1 illustrates a portion of a library or record room in which the ceiling 11 is approximately twelve feet or more above the floor 12 and in which the book stacks or tiers of shelves 13 are approximately three feet apart and shows a platform or cat walk between the stacks midway between the floor and ceiling. preferably formed of spaced apart rods 14 so as not to obstruct light from the ceiling lamps.

The under surfaces of the shade form reflecting surfaces and, as heretofore said, are preferably enameled in white. The inclined top surfaces 2 reflect the light from the filament of an electric bulb mounted within the shade not only in a downward direction but also toward the stacks 13 on each side, the depending flat angular surfaces 3 on each side add to this deflection and diffusion of the light from the bulb along the adjacent faces of the tier of shelves on each side.

This particular construction provides two additional reflecting surfaces on each side of the longitudinal center line of the shade in the curved surfaces 8 which being arranged in pairs on each side of the source of light and each pair being arranged not only on opposite sides of the source of light, but also on opposite sides of the longitudinal vertical plane passing through the sources of light deflect the rays therefrom in a downward and outward direction on each side, thereby greatly increasing the intensity and length of travel of the light spread over the adjacent surface of the adjoining stack or tier of shelves. At the same time, these curved surfaces 8 having each pair depending integrally from each end of the shade and decreasing in width to their juncture directly under the source of light not only provide additional reflecting surfaces but also protect the eyes of the user of the stack from the rays emanating from the source of light both as the individual approaches, departs or is directly under each light provided with a shade of this structure by always providing an opaque body between the eyes and source of light.

This improved shade having the opposite sides brought together on the arc 6 under the center of the lamp not only provides a strong rigid structure, but also acts as a protection for the lamp employed therewith by acting on a guard coacting with the depending flat surface 3 on each side making it very difficult and almost impossible for a blow from a ladder or from a book in the hand of a user or even an individual's head contacting the lamp bulb.

What I claim is:

1. A shade for an electric lamp having an aperture in the center for the reception of the lamp base and oppositely disposed angular reflecting surfaces having parallel edges on each side of the longitudinal center line, continued at each end between said parallel edges on a reentrant angle and of diminishing width on each side of the lamp.

2. A shade for an electric lamp having an aperture in the center for the reception of the lamp base and oppositely disposed flat reflecting surfaces on each side of the longitudinal center line, each terminating in angular extensions, the longitudinal edges of each arranged parallel to the other with the bodies of said flat surfaces on opposite sides of the lamp diminishing in width and extended on a reentrant angle in the direction of said angular extensions of the said flat surfaces.

3. A shade for an electric lamp having an aperture in the center for the reception of the lamp base and oppositely disposed reflecting surfaces having parallel edges on each side of the longitudinal center line with the ends thereof between the parallel edges diminishing in width and brought together on the arc of a circle with the extremities joined below the said lamp aperture.

4. A shade for an electric lamp having an aperture in the center for the reception of the lamp base and oppositely disposed reflecting surfaces on each side of the longitudinal center line terminating in lines parallel to each other and extending therebeyond in an angular flat surface having longitudinal exterior edges parallel to each other, the ends of the first reflecting surfaces each bent on a reentrant angle from the corners on each side and continued with diminishing width away from the first surfaces joined on the plane passing through the longitudinal center on the arc of a circle of a diameter approximately the distance between the parallel lines of the first surfaces and joined to each other beyond the lamp to provide continuous oppositely disposed curved surfaces each at an angle to the

plane passing through the longitudinal center line, providing additional reflecting surfaces on the inner faces and the outer faces providing an opaque shade between the lamp and the eyes of an individual approaching in the direction of the said center line.

In witness whereof, I hereunto subscribe my name.

DIRK G. SAAF.