Oct. 18, 1932. H. G. MARTIN, JR 1,883,803

ELECTRIC LAMP

Filed Oct. 3, 1929

Fig. 1,

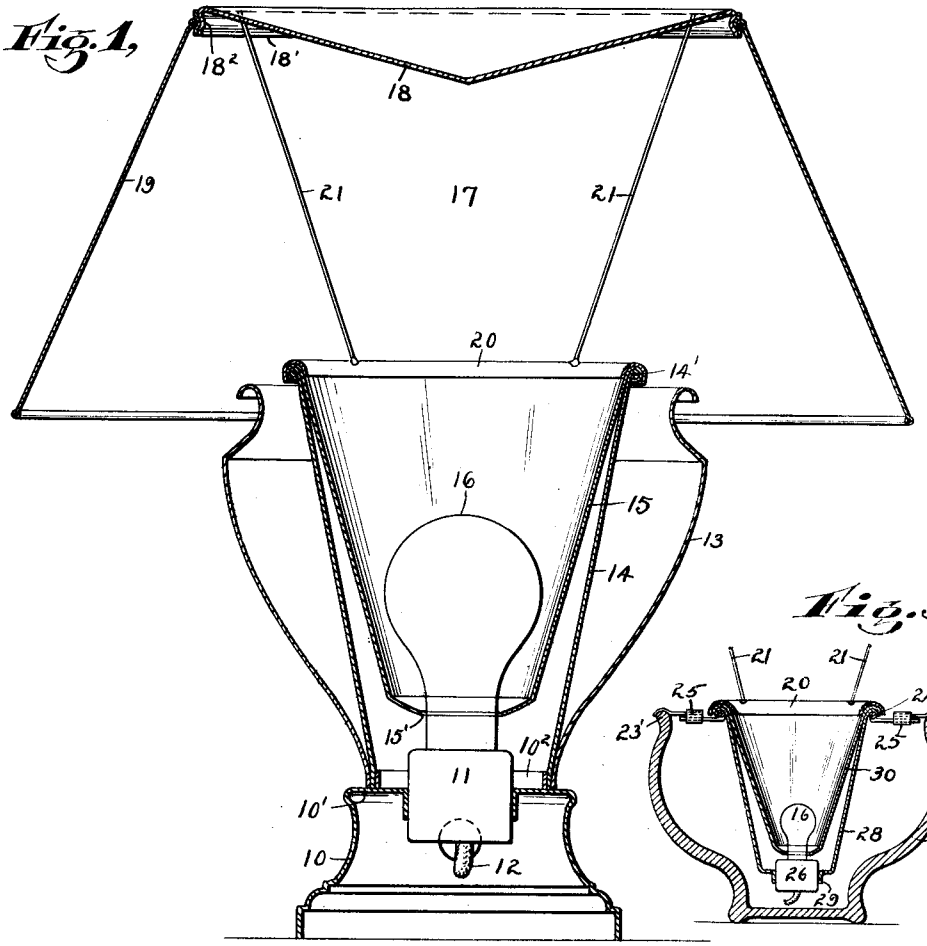
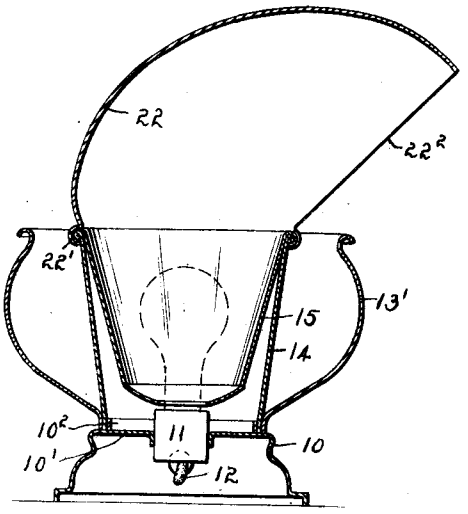


Fig. 3.

Fig. 2,



INVENTOR.
Horace G. Martin Jr
BY Max O. Ordmann
ATTORNEY

Patented Oct. 18, 1932 1,883,803

UNITED STATES PATENT OFFICE

HORACE G. MARTIN, JR., OF NEW YORK, N. Y.

ELECTRIC LAMP

Application filed October 3, 1929. Serial No. 396,984.

The present invention relates to electric lamps.

One object of the present invention is to provide an efficient device which will eliminate objectionable glare and supply a soft, pleasing, diffused light.

Another object is to provide means whereby a vase or the like may be readily converted into a lamp of the type herein described.

Still another object is to provide a simply constructed device which may be manufactured at low cost.

With these and other objects in view my invention consists in the novel construction, combination and arrangement of elements which will hereinafter be more fully described and shown and defined in the appended claims.

In the accompanying drawing in which similar reference characters denote corresponding parts, Fig. 1 is a side sectional elevation of one embodiment of my device to show structural details;

Fig. 2 is a view of a modified form of my device; and

Fig. 3 is a further modification.

Referring to the drawing, 10 denotes a base on the top of which may be centrally mounted an electric light socket 11 to which is connected the usual light wire cord 12 and which may enter said base through a suitable opening therein.

Concentrically arranged relative to said socket on the top 10′ of said base and projecting upwardly therefrom is a suitably shaped shell 13 which may have a cylindrical or other suitable section. Adapted to be mounted interiorly of said shell is a reflector mounting which may for instance comprise a tapered tube or shell 14 provided at its top with a beaded edge 14′ and mounted at its lower end about an upwardly projecting collar 10^2 on the top of said base 10. The diameter of said tapered tube or shell 14 at its upper end is smaller than the corresponding diameter of said shell 13. The respective diameters of said collar 10^2, the lower end of said tube or shell 14, and the lower end of said shell 13 may be arranged so that the latter two fit about said collar 10^2 in the order named and may be soldered, welded or otherwise attached to said collar, to each other and to the top 10′ of said base 10.

Adapted to be mounted interiorly of said shell or tube 14 as for instance by suspending the same from its upper beaded edge 14′ is a reflector 15 which tapers outwardly towards the top and which projects downwardly to a short distance above the socket 11. A central opening 15′ is provided in the bottom of said reflector, said opening being adapted to lie directly above the socket opening when said reflector is in place, in order that the electric light bulb 16 may be screwed into said socket. The said reflector is highly polished on its inner surface and adapted to direct rays of light upwardly out of the same.

In order to obtain the diffused light with my device, I provide a reflecting shade 17 suitably supported above the reflector 15. The said shade 17 may comprise a top reflecting portion 18 shown in the present embodiment as a conical cylinder of revolution, the apex of which projects downwardly towards the bulb. Any other type such as a pyramid or the like may be substituted instead of the cylinder of revolution. The base edge 18′ of said top 18 may be bent over at an angle to the side walls of said member 18 and be provided with a groove 18^2. The lower face of said member 18 may be treated with an enamel finish, or chrome nickle, or other suitable light diffusing finish. The said member 18 in the preferred embodiment is opaque, though this opaqueness is not an essential requirement. Suitably suspended from said member 18 as from said groove 18^2 may be a usual flared translucent shade 19 of glass, parchment or the like. The said shade 17 may be suspended over said reflector 15 as follows:—

A ring 20 having a U-shaped section and adapted to fit around the top edge 15′ of said reflector is provided with a plurality of spaced supporting rods 21 mounted thereon and which are adapted to be attached along the inner base edge of said member 18. The said rods maintain the shade 17 in spaced relationship relative to said lamp and are adapted to so position the apex of said mem-

ber 18 that it will be centrally located relative to said reflector 15 and the bulb 16. The function of the member 18 as hereinbefore described is to throw or direct the light rays emanating from the source 16 downwardly and outward through the space between the shade walls 19 and the shell 13, and also to direct part of the rays against the walls 19. Naturally, the angle which the side wall of said member 18 makes with the horizontal depends upon the angle of the taper of the reflector, and each may be varied to fit the conditions such as size of bulb etc.

The function of the shell 13 is to form an insulating layer of air, or other suitable medium such as water, between the reflector 15 and the exterior of said lamp. This has been found necessary because, as is obvious, a great deal of heat will be given up by said lamp 16 which will be absorbed by the surrounding bodies. If therefore, the shell 13 were not provided and the member 14 left exposed, the same would soon become so hot as to outwardly be dangerous if the lamp were placed on a table where it might readily be brought in contact with the arm or hand of the user, causing liability of severe burns. By the expedient of providing the shell 13, danger is entirely eliminated. It will be noted that an opening is provided whereby air may be circulated between said walls 13 and 14. In the present instance this is accomplished by making the diameter of said shell 13 at its upper end greater than the diameter of shell 14 at the corresponding point. Of course, it could be accomplished by punching holes at suitable points along the circumference of said shell 13. Further the said shell 13 is so arranged in diameter as to afford a sufficient space between it and shell 14 at the most heated points of the latter shell to insure the fact that the dangerous heating of the shell 13 will not occur. The shell 13 also may be artistically shaped to beautify the stand for the lamp.

The modification shown in Fig. 2 is structurally identical with that of Fig. 1 except for the shade and also that the shell 13′ herein is of slightly different contour, to illustrate the fact that its particular shape is not important as long as sufficient space exists between it and the shell 14. This modification further illustrates the adaptability of my device to a desk lamp, merely by changing the form of the reflector used. To so adapt my lamp, I provide a reflector 22 which has an opening at one end provided with a flange 22′ which is adapted to fit directly over the upper end of said reflector 15. The reflector may have the curved section similar to that shown and is adapted to throw the light entirely out through a side opening 22^2 provided in the reflector and downwardly onto the desk on which said lamp stands. This shade 22^2 may be made of such dimensions as to be readily applicable to the device of Fig. 1 in place of the shade 17 shown therein, so that it is possible with the same base to have a device which may be used either as a table lamp for spreading light uniformly in a diffused manner throughout a room, or for directing a diffused light on the desk for use thereon, merely by a change of shades.

My device is readily adaptable for the conversion of an ordinary vase into a lamp giving the characteristics attributed to the one above described.

To acomplish this result, assuming that we have a vase 23, I provide a ring 24 to which are suitably attached a plurality of adjustable suspending hooks 25 which are adapted to hook over or be fastened to the rim 23′ of the vase. The said hooks are adjustable in length to be adaptable to different diametered vases. Suspended from said ring 24 is a socket 26, by means of suspending hooks 28 which are adapted to hook about ring 24, and ring 29 which holds the socket and to which said hooks are fastened. A reflector 30 identical with reflector 15 is also suspended, from said ring 24. Likewise a lamp shade mounting identical with ring 20 and supporting rods 21 is mounted on the ring. In this embodiment the vase 23 itself forms the air space between the reflector 31 and the walls of the vase and since openings are left at the top for air to escape from between said walls there is no danger of overheating. It is possible thereby to transform a vase into a lamp having all the characteristics of my invention.

It is understood that the principles embodied in my invention are not necessarily limited to table lamps, for large floor lamps or the like may be just as readily constructed embodying the features of my invention.

My device may be modified in many other ways without departing from the spirit of my invention and I do not wish to be limited to the details shown and described.

What I claim is:—

1. A lamp comprising a base, an electric light socket mounted on said base, a shaped shell mounted on said base about said socket and extending upwardly from the base, a tapered tubular shell mounted inside of said shaped shell and having a beaded top edge, the diameter of said tapered shell being smaller than the corresponding diameters of said shaped shell, a tubular tapered reflector suspended from said beaded top edge and projecting downwardly inside said tubular shell above said socket, and reflecting shade means adapted to be supported above said shells from said beaded top edge, said shade including a conical cylinder of revolution the apex of which projects downwardly and a flared shade mounted about the circumferential edge of said cylinder of revolution.

2. A lamp comprising a base, an electric light socket mounted on said base, an upward-

ly projecting collar mounted on said base concentrically with said socket, a tapered tubular shell having a beaded top edge mounted on said collar and projecting upwardly, a shaped shell mounted on said base about said collar and spaced therefrom except at said collar, a tubular tapered reflector suspended from said beaded top edge and projecting downwardly inside said tubular shell above said socket, and reflecting shade means adapted to be supported above said shells from said beaded top edge, said shade means including a conical cylinder of revolution the apex of which projects downwardly towards said socket, and a flared shade mounted about the circumferential edge of said cylinder of revolution.

In testimony whereof I affix my signature.

HORACE G. MARTIN, JR.