Aug. 23, 1932. L. C. DOANE 1,873,309

LAMP

Filed Nov. 8, 1929

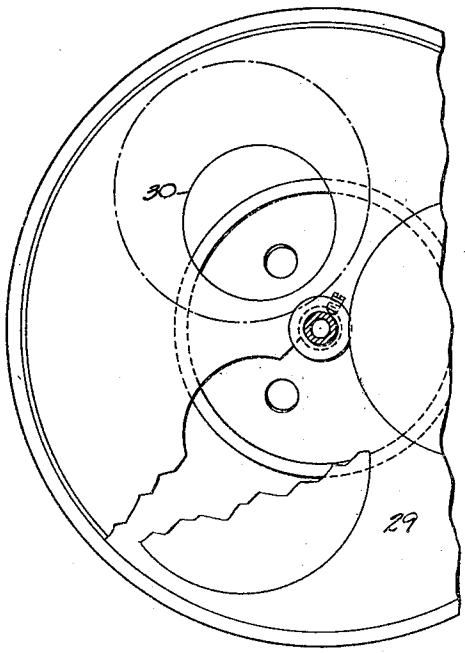


Fig. 2.

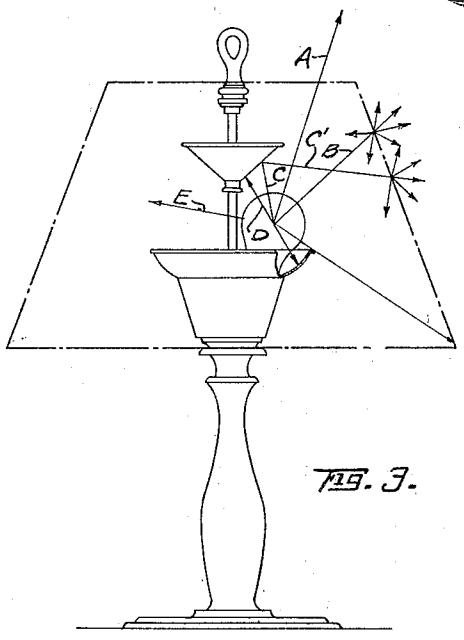
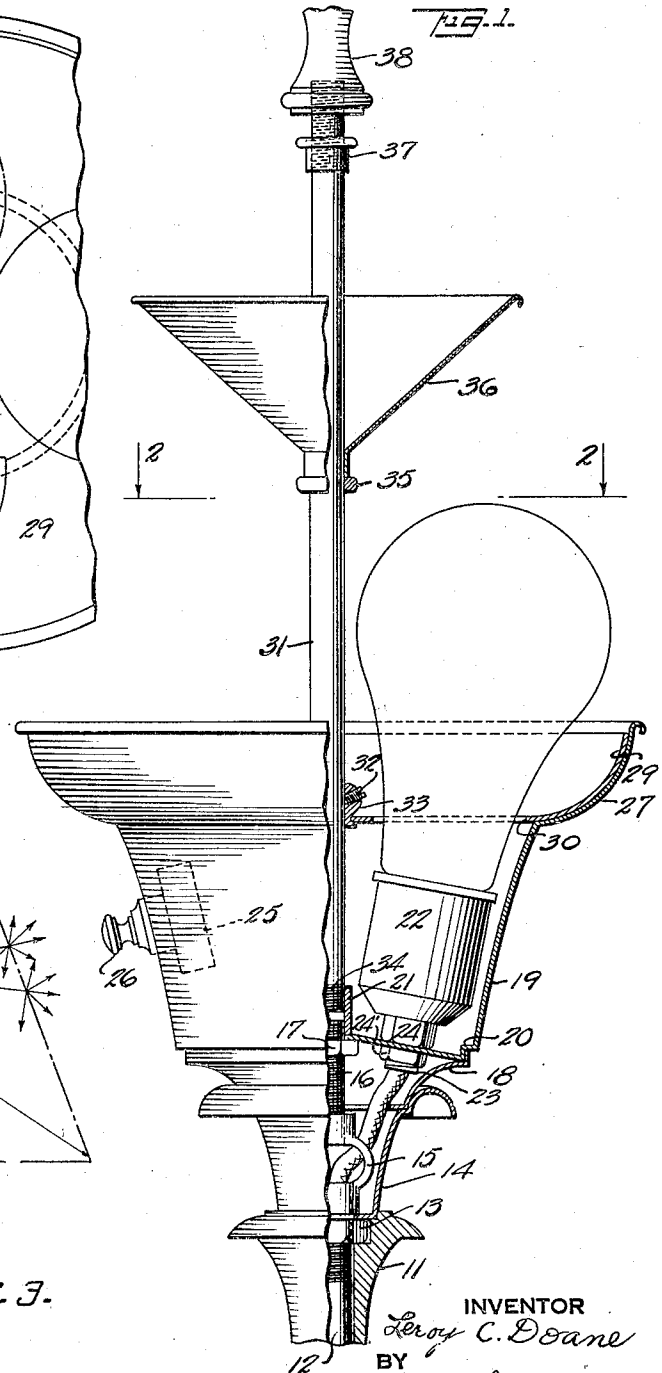


Fig. 3.

Fig. 1.



INVENTOR
Leroy C. Doane
BY
ATTORNEY

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LEROY C. DOANE, OF MERIDEN, CONNECTICUT, ASSIGNOR TO THE MILLER COMPANY, OF MERIDEN, CONNECTICUT, A CORPORATION OF CONNECTICUT

LAMP

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The present invention relates to lamps and is more particularly directed toward lamps or fixtures, employing light controlling devices to redirect the light.

The present invention contemplates a design for table or floor lamps or dome fixtures wherein a number of incandescent lamp bulbs are associated with light redirecting reflectors and an outer shade so that the light rays are intercepted and scattered about inside the shade so that substantially all the light finally emitted out from the unit is diffused by the shade.

The present invention contemplates a luminaire of this nature with the parts so designed and arranged that there is a minimum of uncontrolled light thereby eliminating the production of objectionable shadows.

The accompanying drawing shows, for purposes of illustrating the present invention, one of the many possible embodiments in which it may take form, it being understood that the drawing is illustrative of the invention rather than limiting the same.

In this drawing:

Figure 1 is an enlarged vertical sectional view of the upper part of a lamp;

Figure 2 is a section taken on the line 2—2 of Figure 1; and

Figure 3 is a diagrammatic view illustrating a shade and light controlling device.

For purposes of illustrating the invention, it is shown in the form of a floor or table lamp. Such a lamp may have any desired type of supporting base 10 and an ornamental column 11 which is placed outside a long piece of pipe 12. The upper part of this pipe 12 is threaded and a nut 13 is employed to lock the column in place. The pipe 12 extends on through the nut 11 to receive a stamped bobasche 14, and the lower end of a hickey 15. The hickey is threaded down to clamp the bobasche in place. A nipple 16 is threaded into the upper end of the hickey 12 and this nipple carries an abutment in the form of a stop nut 17. A stamped adapter or neck 18 is rested on the bobasche stamping 15 and this adapter together with the nut 17, act as supports for a socket cover or body in the form of a bell-shaped stamping 19. The adapter and bobasche cover the hickey and wires.

The lower part 20 of the stamping 19 is received in the ring 18 as indicated and the stamping is provided with a small central hole to accommodate the upper end of the nipple 16. A coupling ring 21 is threaded onto the upper end of the nipple and this locks the stamping 19 in place. This stamping 19 carries a number of lamp sockets 22. These sockets are secured in place by the customary nipple 23 and lock nuts 24, 24'. The stamping 19 also supports a switch 25 having an externally accessible notch 26 for operating. This switch is connected to the lamp bulbs in any desired manner. For example, when three lamp bulbs are in use, it may be connected to light all the bulbs, two of the bulbs, or only one bulb, thereby varying the brightness of the unit.

The upper part of the stamping 19 is flared as indicated at 27 and this part of the stamping is adapted to receive an aluminum reflector unit 29. This reflector has three holes 30 spaced to receive the necks of the lamp bulbs as shown. It may be locked in place on a shade supporting stem 31 by means of a headless locking screw 32 carried by slip ring 33. The stem 31 may be in the form of a tube which is threaded at its lower end 34 so that it can be threaded into the coupling ring 21. If desired the nipple 16 and stem 31 may be integral. The stamping 31 carries a ring 35 preferably secured to it by solder and this ring 35 is adapted to support an aluminum deflector 36 outwardly flaring as indicated. The upper end of the stem 31 is provided with a shade supporting ring 37 and finial or knob 38.

A shade is adapted to be supported between the finial or knob and the ring 37. This shade may be of any desired shape and size, but, for convenience is preferably of about the proportions indicated in Figure 3.

When the parts are proportioned about as indicated in the drawing, the path of the light rays may be as indicated in Figure 3. There will be a small amount of upwardly directed light which passes out through the upper part of the shade unless the shade is closed. These rays are indicated at A. A considerable part of the light from the lamp will fall directly on the inside of the shade and will be diffused and scattered by the shade. Such a ray is indicated at B. Some of the upwardly directed light will fall on the outside of the deflector 36 as indicated by the ray C and be returned by this deflector toward the shade as indicated by the ray C'. The downwardly directed light will be cut off by the lower end of the shade as indicated so that no direct light from the lamp bulbs may pass out through the lower end of the shade. The reflector 29 is saucer-shaped and some of the light from this deflector will be turned back toward the upper deflector 36 as indicated by the ray D. This upper deflector will act on the light to return it outwardly toward the shade. When one lamp is lighted, it will be apparent that considerable of the light will pass to the left as indicated generally by the ray E and will fall directly on the opposite side of the shade without reflection.

It will of course be understood that the proportion of the parts may be varied considerably by changing the angles of the reflecting surfaces of the reflectors 29 and 36, also that their spacing may be varied to obtain desired light distribution. In order to make it easier to take out and replace lamp bulb, the upper reflector 36 is preferably slidable along the stem 31. Where the unit is to be pendant instead of supported on a standard, it will be understood that the standard will be omitted, the stem hung from a suitable support and that wires may be carried down through the stem 31.

It is obvious that the invention may be embodied in many forms and constructions within the scope of the claims, and I wish it to be understood that the particular form shown is but one of the many forms. Various modifications and changes being possible, I do not otherwise limit myself in any way with respect thereto.

I claim:

1. A lamp comprising a standard, a plurality of upwardly opening lamp sockets carried thereby and adapted to support a cluster of lamp bulbs, a socket cover about the sockets and lower parts of the cluster, the filaments of the lamp bulbs being above the upper edge of the socket cover, a central stem extending upwardly between the sockets and lamp bulbs, a diffusing shade carried by the stem and surrounding the cluster, the upper edges of the socket cover intercepting downwardly directed light from the lamp bulb filaments and preventing its passing out through the lower end of the shade, and a deflector carried on the stem above the lamp bulbs for redirecting upwardly directed light onto the shade.

2. A lamp comprising a standard, a plurality of upwardly opening lamp sockets carried thereby and adapted to support a cluster of lamp bulbs, a socket cover about the sockets and lower part of the cluster, the filaments of the lamp bulbs being above the upper edge of the socket cover, a central stem extending upwardly between the sockets and lamp bulbs, a diffusing shade carried by the stem and surrounding the cluster, the upper edges of the socket cover intercepting downwardly directed light from the lamp bulb filaments and preventing its passing out through the lower end of the shade, an upwardly acting reflector carried within the socket cover and apertured to receive the necks of the lamp bulbs, and a deflector carried on the stem above the lamp bulbs for redirecting upwardly directed light onto the shade.

3. In a lamp, a central stem, an upwardly opening body secured to the lower end of the stem and carrying upwardly opening lamp sockets about the stem, the body extending above the sockets to conceal the sockets and the necks of lamp bulbs carried therein, a reflector carried by the body and having apertures to receive the lamp bulbs, the reflector acting to reflect light upwardly, and an upwardly and outwardly flaring reflector carried by the stem above the lamp bulbs.

4. A lamp comprising a tubular standard, a stem extending upwardly from the standard, a bowl-shaped stamping surrounding the stem, a plurality of upwardly opening sockets secured to the bottom of the bowl, lamp bulbs in the sockets, a reflector carried inside the upper part of the bowl and below the light sources of the bulbs, a deflector carried by the stem above the bulbs, and a diffusing shade intercepting direct light from the bulbs and reflected light from the deflector and reflector.

5. A lamp comprising a standard, a hickey on top of the standard, a stem secured to the hickey and extending upwardly, a stamping fixedly secured to the stem above the hickey, a plurality of upwardly opening lamp sockets disposed about the stem and secured to the stamping, lamp bulbs in the sockets, a small upwardly and outwardly flaring deflector carried by the stem above the lamp, and a diffusing shade supported by the stem above the deflector, the deflector acting on upwardly directed light to redirect it onto the inner surface of the shade.

6. A lamp comprising a standard, a plurality of upwardly opening lamp sockets carried thereby and adapted to support a cluster of lamp bulbs, a socket cover about the sockets and lower part of the cluster, the filaments of the lamp bulbs being above the upper edge of the socket cover, a central stem extending upwardly between the sockets and lamp bulbs, a diffusing shade carried by the stem and surrounding the cluster, the upper edges of the socket cover intercepting downwardly directed light from the lamp bulb filaments and preventing its passing out through the lower end of the shade, and an upwardly acting reflector carried within the socket cover and apertured to receive the necks of the lamp bulbs.

Signed at Meriden, in the county of New Haven and State of Connecticut, this 5th day of November, 1929.

LEROY C. DOANE.