

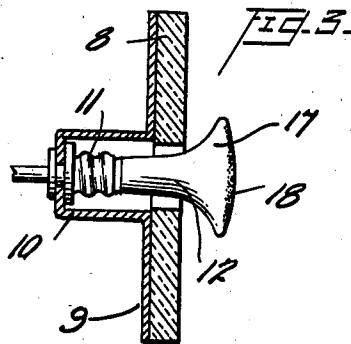
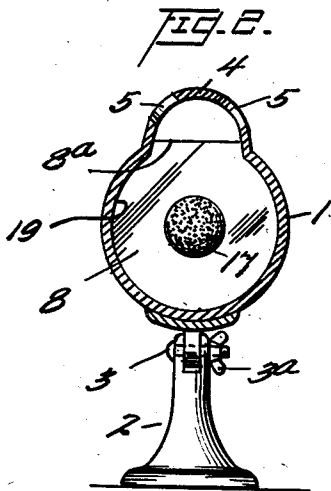
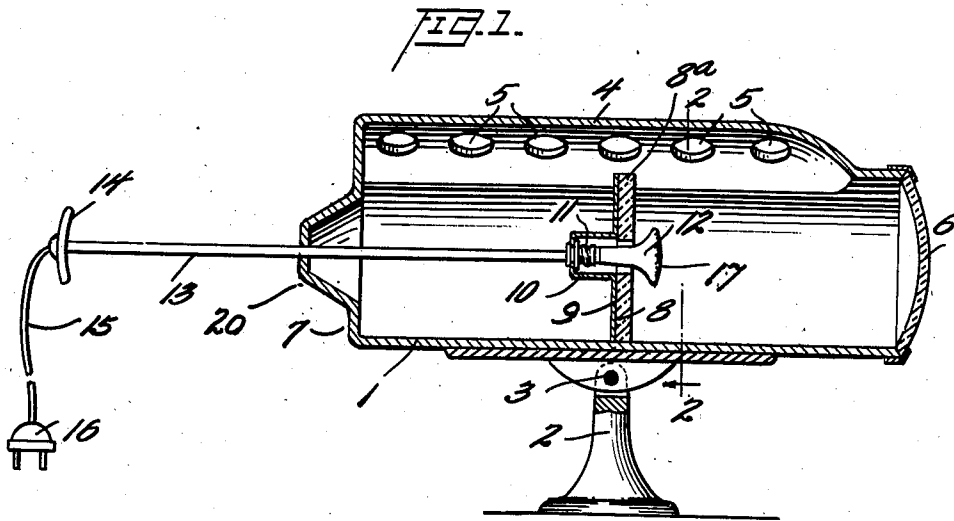
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A. J. PEREIRA

2,303,230

LIGHT PROJECTOR

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Inventor

Antonio J. Pereira

By Eugene A. Twedy
His Attorney

UNITED STATES PATENT OFFICE

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LIGHT PROJECTOR

Antonio J. Pereira, Oakland, Calif.

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1 Claim. (Cl. 240—41.35)

This invention relates to electric lamps and has for its purpose to provide an improved light projector.

An important object of my invention is to provide a light projector of novel construction wherein the electric bulb constituting the source of illumination is mounted in the center of a flat reflector contained within an elongated housing having its inner walls coated with a light-absorbing material, the arrangement being such that the light from the bulb falling upon the reflector brightly illuminates the reflector and causes a beam to be projected from the lamp housing.

Another object of my invention is to provide in a light projector of the above character, means for slidably mounting the reflector so that the reflector together with the bulb may be moved longitudinally of the lamp housing to vary the character of the beam produced by the light.

Other objects and advantages will be apparent from the following detailed description of a preferred embodiment of my invention, reference being had to the annexed drawing in which:

Figure 1 is a longitudinal vertical cross-sectional view through a light projector;

Figure 2 is a transverse vertical cross-sectional view of the projector taken on the line 2—2 of Fig. 1; and

Figure 3 is an enlarged detail cross-sectional view through the reflector showing more clearly the socket associated therewith for mounting the electric bulb.

Referring to the drawing, in the cross-sectional view of Fig. 1 is shown a light projector comprising an elongated housing 1 supported upon a post 2, a pin connection 3 being provided between the post and housing, including a clamping nut 3a, whereby the projector may be tilted to different positions.

The housing 1 may be made of light sheet metal rolled into generally cylindrical shape, the upper side of the housing being offset slightly to form an arched roof 4 extending from a point located a short distance inwardly from the forward end of the housing to the closed rear end of the housing. Vents 5 extend in rows along opposite sides of the arched roof to afford ventilation for the interior of the projector.

The forward end of the housing is closed by a lens 6 while its opposite end is closed by an end wall 7. Mounted for slidable adjustment within the housing is a flat reflector 8, such as a glass mirror, corresponding in size to the inside diameter of the housing but having a tongue 8a extending part way up into the space provided by

the arched roof 4. Overlying and bonded to the back of the reflector is a backing plate 9, this backing plate being centrally formed with a rearwardly-directed cup 10 in which is secured a socket 11 for receiving an electric bulb 12.

A hollow tube 13 is fastened to the bottom of the cup 10 and extends horizontally outward through an opening in the end wall 7 of the housing where its end is provided with a knob 14. Conductors 15 extend through the tube and at one end form an electrical connection with the lamp socket and at their other end are provided with a plug-in 16, by which they may be connected with a source of current. The bulb 12 is adapted to be screwed into the socket 11 and to extend through a clearance opening provided in the center of the reflector. This bulb is preferably of the mushroom type having a silvered center as indicated at 18. The interior of the housing is painted black, as indicated at 19, so as to absorb the stray light rays. The end wall 7 of the housing is centrally and rearwardly offset to present a pocket 20 for receiving the cup 10 when the reflector is retracted to its fullest extent.

In the operation of my light projector, the electric light bulb 12 is inserted in the socket 10 and the plug-in 16 is connected to a source of current. The operator then by grasping knob 14 moves the tube 13 longitudinally and with it the reflector 8. Moving the reflector toward the lens increases the dispersion of the rays emerging from the housing, while moving the reflector away from the lens reduces such dispersion, the rays reflected against the interiorly black coated wall of the housing being absorbed thereby. The bright reflection from the polished surface of the mirror 8 is further enhanced by the dark background of the light housing.

By moving the projector about its pivotal connection with the post 2, its beam may be directed in different directions.

Manifestly the invention is capable of being embodied in forms other than that described above, which is to be regarded as exemplary rather than as restrictive of the invention, without departing from the spirit of the invention as defined in the following claim.

I claim:

A light projector comprising a generally cylindrical elongated housing coated black completely upon its interior, a lens closing one end of the housing and a wall closing the opposite end of the housing, a reflector including a flat generally-circular mirror disposed within the housing parallel to the lens and corresponding closely to the

inside diameter of the housing, an offset roof extending along the top of said housing, a tongue on the reflector extending into the space provided by the offset roof and serving as a key for preventing rotative movement of the reflector, air vents in said roof, said reflector having a central opening, a cup provided on the rear face of the reflector in line with the opening, a socket mounted in said cup for supporting an electric light

bulb a short distance in front of the reflecting face of the mirror, a tube associated with said reflector and extending through the end wall of the housing to permit manual sliding adjustment of the reflector lengthwise of the housing, and flexible conductors electrically connected to the socket and extending rearwardly through the tube.

ANTONIO J. PEREIRA.

BY _____

Attorney-in-Fact

ANTONIO J. PEREIRA

By _____

Attorney-in-Fact