G. LOVEBERG.

PICTURE ILLUMINATOR.

APPLICATION FILED JAN. 20, 1920.

1,409,114. Patented Mar. 7, 1922.

Fig. 1

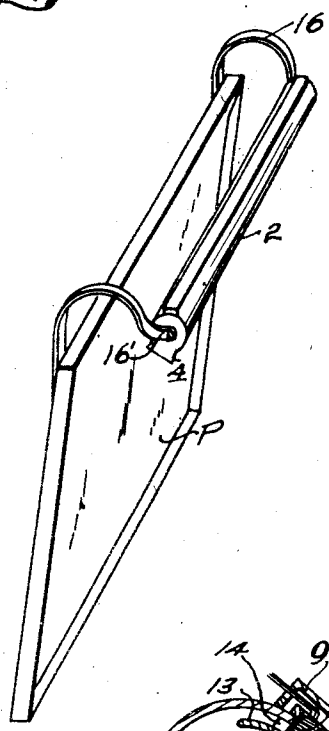
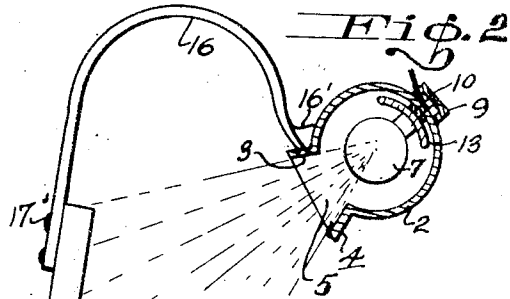


Fig. 2



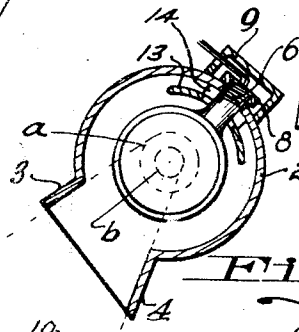


Fig. 4

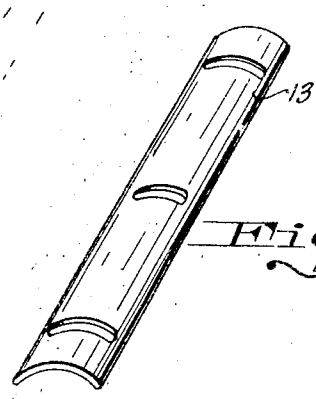


Fig. 5

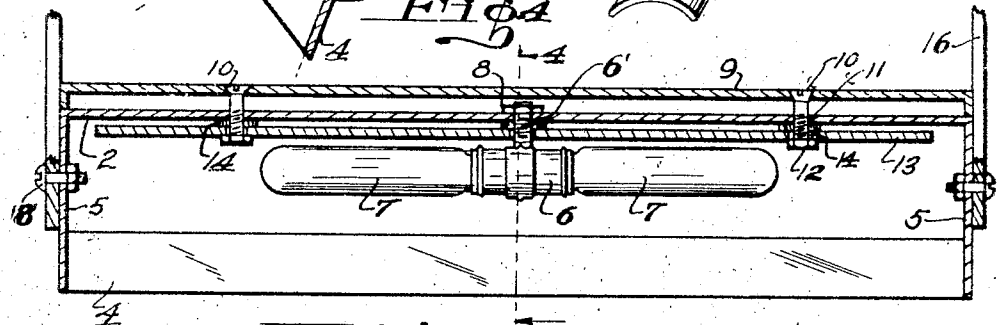


Fig. 3

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PICTURE ILLUMINATOR.

1,409,114. Specification of Letters Patent. Patented Mar. 7, 1922.

Application filed January 20, 1920. Serial No. 352,794.

To all whom it may concern:

Be it known that I, GODFREY LOVEBERG, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Picture Illuminators, of which the following is a specification.

This invention relates to illuminating apparatus and has for its object to provide for improvements in means for illuminating pictures, and the invention consists of the construction, the combination and in details and arrangements of the parts an embodiment of which invention is illustrated in the accompanying drawings and described and claimed herein.

Figure 1 is a perspective of the device as shown arranged for the illumination of a picture.

Fig. 2 is an end view in elevation and partial section of the device and picture.

Fig. 3 is a central, longitudinal, sectional view through the improved lamp.

Fig. 4 is a section on line 4—4 of Fig. 3.

Fig. 5 is a perspective looking toward the back of the reflector.

Considerable difficulty has been encountered heretofore in the effective illumination of pictures and particularly in the illumination of oil paintings for the reason that generally the illuminating devices commonly employed cast too strong a light or are so arranged as to cause a reflection of the illuminating rays and thus materially decreasing in the proper display of the picture, and again difficulty is had because of the illuminating source or bulbs are so positioned as to be visible to the eye of the observer.

To overcome these defects of illumination I have devised a lamp that has been very efficiently used in the illumination of various types of works of art consisting of oil paintings, and I have found that a preferred construction consists of a substantially cylindrical housing 2 the length of which is determined by the length of the picture to be illuminated, and one side of this housing is provided with a longitudinal mouth formed between longitudinally extending upper and lower lips or flanges 3 and 4 respectively. The ends of the casing are closed by end walls 5 that have an area that is co-extensive with the transverse area of the cylinder and mouth.

Concentrically arranged within the cylinder is a double socket 6 to receive illuminating bulbs 7—7 that I have found preferably to be frosted although clear bulbs may be used. The bulbs are arranged longitudinally substantially in the axis of the cylinder 2, and the socket 6 has its rear threaded extension 6′ extended through an aperture therefor at the back of the casing and engaged by a nut 8, and the lamp cords from the socket 6 extend out through the connection 6′ and rearwardly through apertures made in a longitudinally extending channel piece 9 laid along the side of the casing 2 that is opposite to the mouth of the casing.

The channel strip 9 is secured in place as by screws 10 which pass through apertures 11 provided therefor in the casing or cylinder 2, and on the inner ends of the screws 10 are nuts 12 which serve to hold in place a concavo-convex longitudinally extending reflector 13 that is pressed back on washers 14 mounted on the screws 10 and one of which is arranged on the socket extension 6′ so that the reflector 13 is held in spaced position in front of the adjacent surface of the casing 2 so as to form an air space to prevent undue heating of the parts when the lamps are energized.

The lamp casing or cylinder 2 is supported in a predetermined position in front of the picture P to be illuminated by bracket arms 16 that may be screwed as at 17 or otherwise secured to the back of the picture or other convenient part. The arms 16 are shown as of flat material having their forward portions bent at 16′ to form end bearings applicable flatwise against the ends 5 of the cylinder 2 and to which they may be secured in a position co-axial of the cylinder as by bolts 18 on which the casing 2 can be oscillated so as to secure the accurate distribution of the light issuing from the lamp and play upon the picture.

I have found that the best lighting efficiency is secured if the lamp be mounted and adjusted in a position slightly above and well to the front of the top of the picture, as shown in Fig. 2, lip 3 is positioned so as to permit the light rays to pass from the illuminator just across the upper horizontal edge of the picture frame. Lip 3 is formed so that it occupies a plane that is tangent to a circle concentric with the center of the cylinder, which circle is indicated by dotted line *a* in Fig. 4. Lip 4 that forms the lower edge of the mouth 5 would be arranged at an angle to the lip 3 so that the plane of

said lip 4 is tangent to a circle that is concentric with the axis of the cylinder and said circle being somewhat smaller than the circle *a* as indicated. By thus arranging the mouth lips 3 and 4 the rays of light are caused and permitted to pass to the area of the picture to be illuminated in a most effective manner. Preferably the inner faces of the lips 3 and 4 are provided with non-reflecting surfaces so that the reflection of light caused by the surfaces is therefore overcome and only light as controlled by the mouth opening is thrown on to the picture.

To facilitate the distribution and range of light upon the picture the reflector 13 is shown as having the apertures 11 elongated transversely as in Fig. 5 thereby permitting the shifting of the reflector 13 as may be desired with respect to the fastening screws and the mouth of the cylinder.

By means of my picture illuminator I effect a perfectly even, soft illumination of all parts of the face of the picture, and all glare and strong disagreeable lighting effects are avoided.

Various changes may be made without departing from the spirit of the invention as claimed.

What is claimed is:

1. An illuminating device for pictures, comprising an elongated cylindrical casing with electric bulbs supported therein; a circumferentially adjustable reflecting surface extending along the inner rear portion of the casing and spaced therefrom; and said casing having a longitudinal mouth with outwardly projecting lips that occupy different angular planes with respect to each other and with respect to the axis of said casing.

2. An illuminating device for pictures, comprising an elongated cylindrical casing with electric bulbs supported therein; a circumferentially adjustable reflecting surface extending along the inner rear portion of the casing, the casing having a longitudinal mouth with outwardly projecting lips that occupy different angular planes with respect to each other and with respect to the axis of the casing; and means supporting the casing in a position above and in front of the top of the picture with the upper lip occupying a plane passing just above the upper part of the picture frame and the lower lip occupying a plane passing just below the lower part of the frame.

3. An illuminating device for pictures, comprising an elongated cylindrical casing with electric bulbs supported therein; a concave reflecting surface extending along the inner rear portion of the casing and spaced therefrom, the casing having a longitudinal mouth with relatively flared lips, and said reflector being slotted transversely to provide for its circumferential adjustment in the casing.

4. An illuminating device for pictures, comprising an elongated casing with electric bulbs supported therein; a reflecting surface extending along the inner rear portion of the casing and being mounted thereupon for circumferential adjustment, said reflecting surface being spaced apart from the wall of the casing to form an air circulating space, the casing having a longitudinal mouth with relatively flared lips; and side arms on which the casing is pivoted at its ends to be turned on its axis.

In testimony whereof I have signed my name to this specification.

G. LOVEBERG.