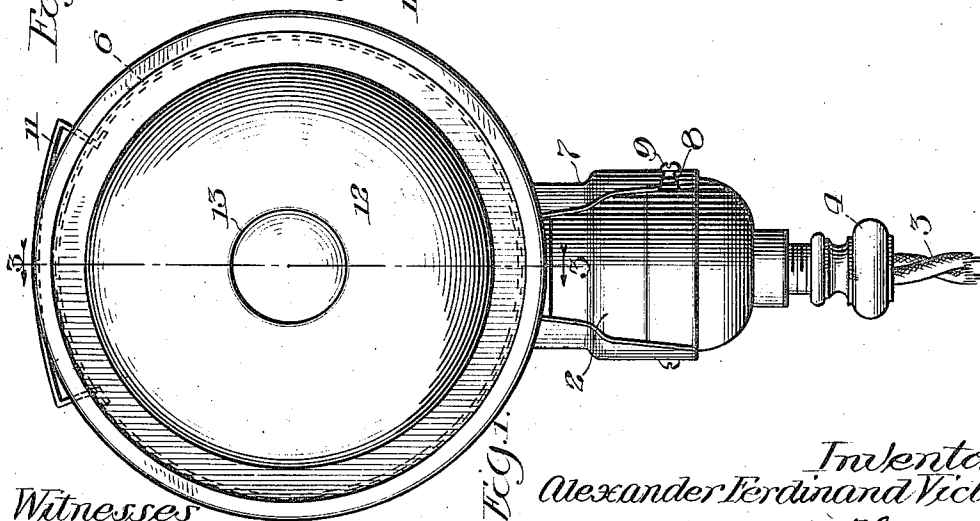
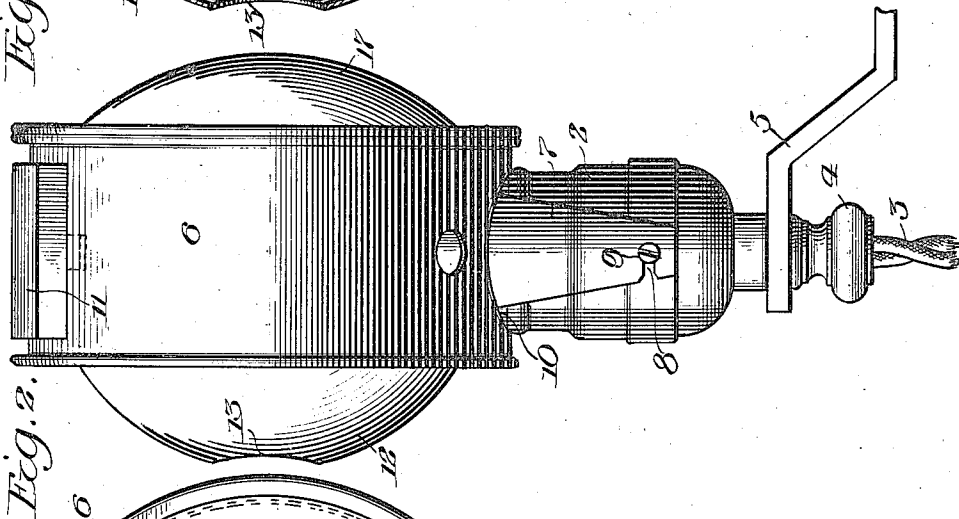
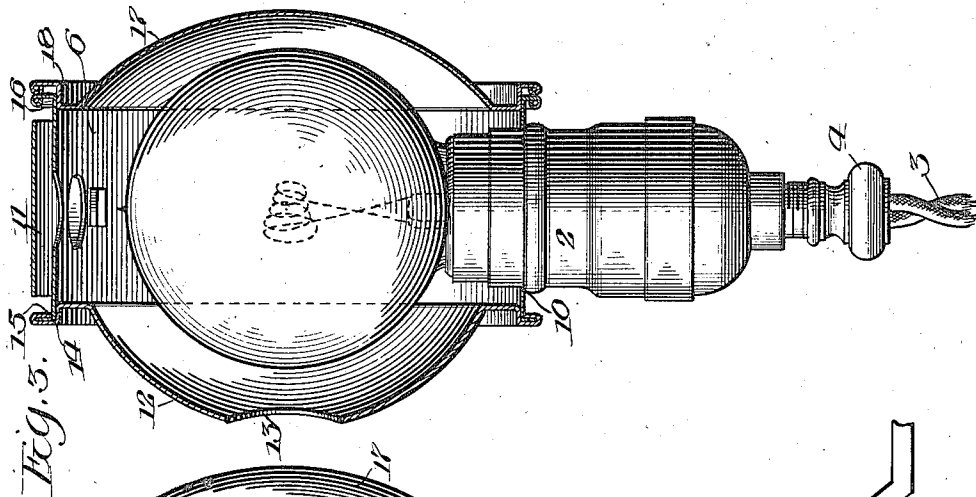


A. F. VICTOR.
LAMP FOR PICTURE DISPLAY MACHINES.
APPLICATION FILED DEC. 9, 1911.

1,063,401.

Patented June 3, 1913.



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UNITED STATES PATENT OFFICE.

ALEXANDER FERDINAND VICTOR, OF DAVENPORT, IOWA.

LAMP FOR PICTURE-DISPLAY MACHINES.

1,063,401.

Specification of Letters Patent. . . Patented June 3, 1913.

Application filed December 9, 1911. Serial No. 664,886.

To all whom it may concern:

Be it known that I, ALEXANDER FERDINAND VICTOR, a subject of the King of Sweden, having made my first declaration of becoming a citizen of the United States, residing at Davenport, in the county of Scott and State of Iowa, have invented new and useful Improvements in Lamps for Picture-Display Machines, of which the following is a full, clear, and exact description.

My invention relates to lamps employed in connection with picture display machines, such as kinematographs, stereopticons, and similar apparatus, for projecting views, both animated and stationary, upon a screen.

It is the object of my invention to intensify and greatly multiply the light rays from an incandescent electric-light bulb of comparatively low candle-power and to direct these rays in a comparatively solid beam through an opening in the front of the lamp.

It is also an object of my invention to accomplish the above-mentioned result in as simple and economical a manner as possible in order to materially reduce one of the principal items of expense in picture displaying machines,—that of illumination.

This I accomplish by the means and in the manner hereinafter fully described, and as more particularly pointed out in the claims, reference being had to the accompanying drawings, which form a part of this specification, wherein,

Figure 1 is a vertical front elevation of my improved lamp, and Fig. 2 is a vertical side elevation of the same. Fig. 3 is a central vertical section thereof taken on line 3—3, Fig. 1, looking in the direction indicated by the arrows.

Referring to the drawings, 1 represents an electric bulb of the incandescent or other type of comparatively low candle-power, and 2 is the ordinary socket containing the terminal contacts of an electric circuit 3. The lower end of the socket member is reduced in diameter, and is internally screw-threaded in the usual manner, and a hollow screw-threaded bolt 4 is tapped into the same. A shoulder on the shank of this bolt affords means for clamping the lamp to any suitable bracket 5 having a bifurcated end between the arms of which said bolt is inserted.

Surrounding the electric bulb 1, is a substantially spherical shaped shade or globe

constructed in a novel manner and of several parts. This shade preferably comprises a cylindrical casing 6 that forms the central portion of the shade and has its ends cut-away. Suitable parallel supporting brackets or arms 7, 7, that project downwardly from the under segment of this casing, have transversely arranged slots 8, in the lower portions of their sides for engagement with the securing pins or screws 9 tapped into the metallic case of the socket 12, substantially as shown. An opening, 10, of sufficient diameter, to accommodate the socket, is cut in this portion of the casing, while in the upper segment thereof suitable vent openings are provided and arched over by a baffle or shield 11. The forward end of this casing is preferably closed by a metallic reflector 12, of concavo-concave shape, having an opening 13 in the radial center of the same, the focal point of which is the filament of the lamp and consequently is substantially parallel to the surface of the bulb. Said reflector is secured to the casing by clamping the same thereto. This is done by bending the metal outside the concavity of the reflector to form a Z-shaped flange 14, that fits snugly into the cut-away end of the casing and then bending or clamping the same over the laterally flanged edge 15 of the casing. The edge of the opposite end of the casing is preferably provided with a lateral flange 16 having its outer edge rolled back or beaded. This end of the casing is closed by a removable reflector plate 17 of concavo-concave shape but of wider focus than that at the opposite end of the casing. This reflector has its edges outside the concavity bent into a Z-shaped flange 18 and the outer edge of this flange has a beading similar to that on the adjacent flanged edge of the casing. This latter reflector is removable from the casing and on account of the difference in the focal axis of the two reflectors, the light rays are deflected back and forth upon the other reflector until a portion of the same are transformed into a solid beam of substantially parallel rays that leave the central portion of the rear reflector in a line striking through the two focal points of the reflectors and pass out through the opening 13 in the front reflector. The rays leaving the lamp are therefore greatly intensified and it has been found from actual experiments that the light units of the electric lamps are increased

about ten fold and on account of the rays being in a solid beam of light, the lamp is very efficient where such a form is to be employed, and, besides its employment on kinematographs and the like, is especially applicable for use in connection with surgical or dental operations and examinations and the like.

What I claim as new is:—

- 10 1. A lamp comprising a cylindrical casing, the ends of which are open, a front and a rear reflector mounted in said open ends and facing each other, and an illuminant agent disposed between said reflectors.
- 15 2. A lamp, comprising a cylindrical casing, the ends of which are open, a front and a rear reflector mounted in said open ends, the former of which has a central opening and faces the latter, and an illuminant agent
- 20 disposed between said reflectors.
3. A lamp comprising a cylindrical casing, the ends of which are open, a front and a rear concave reflector mounted in said ends, the former of which is of greater concavity than the latter and faces the same,
- 25 and an illuminant agent disposed between said reflectors.
4. A lamp comprising a cylindrical casing, the ends of which are open, a front and
- 30 a rear concave reflector of different foci

mounted in said open ends and facing each other, and an illuminant agent disposed between said reflectors.

5. A lamp comprising a cylindrical casing, the ends of which are open, a front and a rear concave reflector of different foci mounted in said open ends and facing each other, and an illuminant agent disposed between said reflectors at approximately the focus of said front reflector.

6. A lamp comprising a cylindrical casing, the ends of which are open, a front and a rear concave reflector mounted in said ends, the former of which is of greater concavity than the latter and faces the same and is provided with a central opening, and an illuminant agent disposed between said reflectors.

7. A lamp comprising a cylindrical casing, the ends of which are open, a front and a rear concave reflector of different foci mounted in said open ends and facing each other, a central opening in said front reflector, and an illuminant agent disposed between said reflectors.

In witness whereof I have hereunto set my hand and seal this 5th day of Dec. 1911.

ALEXANDER FERDINAND VICTOR.

Witnesses:

SAMUEL G. ROSE,
LUCILE PARKER.