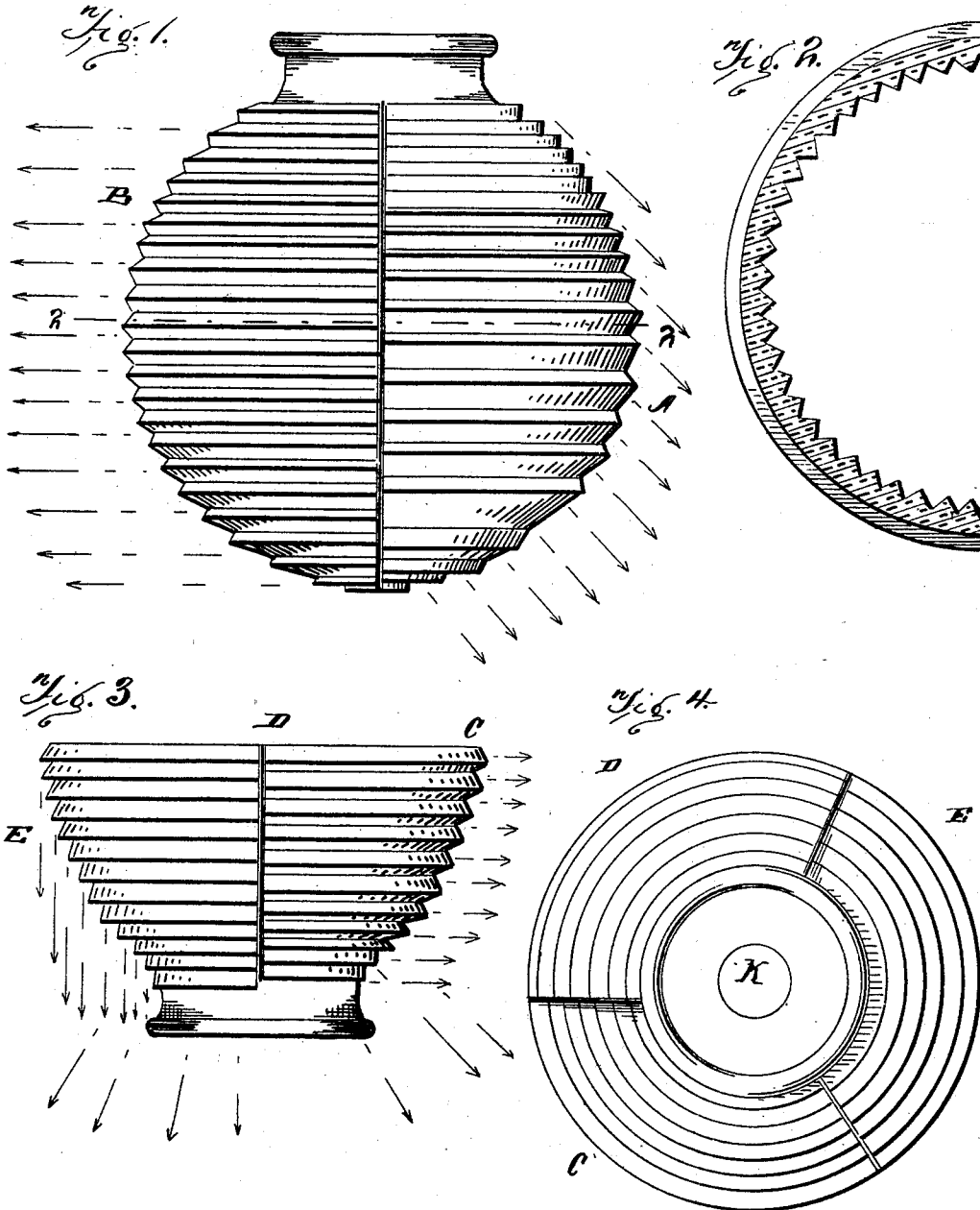


No. 679,771.

Patented Aug. 6, 1901.

O. A. MYGATT.
LAMP SHADE OR GLOBE.
(Application filed Apr. 14, 1900.)

(No Model.)



WITNESSES
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LAMP SHADE OR GLOBE.

SPECIFICATION forming part of Letters Patent No. 679,771, dated August 6, 1901.

Application filed April 14, 1900. Serial No. 12,920. (No model.)

To all whom it may concern:

Be it known that I, OTIS A. MYGATT, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Lamp Shades or Globes, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in glass globes or shades for covering lights.

It is a known fact that by putting horizontal prisms on the outside of a globe or shade suitably calculated for definite purposes the rays of a light placed within can be deflected by reflection or refraction, or both, in definite directions—for instance, rays can be concentrated in a horizontal direction or the majority of rays can be deflected or thrown down at an angle of, say, forty-five degrees from the horizontal, or, again, the majority of the rays may be deflected and thrown down in a vertical direction. In fact, globes achieving these various purposes now exist; but there is at present no globe known to me which combines in one globe the faculty of being able to throw a large proportion of the rays of a light in different directions or angles at will. In some cases a strong light is needed out horizontally. In other cases it is needed, say, at forty-five degrees below the horizontal. In a third case it may be needed immediately underneath. As matters now stand it is necessary to have two or more globes which have to be changed when a change of direction in the rays of light is needed.

The present invention is intended to obviate the necessity of having several globes by combining in one globe the faculty of throwing the majority of the rays of light in different directions as may be required. This is accomplished by dividing the outer surface of the globe into separate areas of illumination, each area or superficial surface being covered by external horizontal prisms, the prisms of each distinct area being different as to size or angle, or both. Where two such illuminating areas are employed, the globe may be constructed so that the prisms referred to as projecting from one area cause the light transmitted

through them to pass in substantially horizontal direction, while the prisms of the other area may transmit the light in an inclined or vertical direction. When more than two distinct illuminating areas are employed, the first may be covered with outside prisms, which serve to project the transmitted light horizontally, the second may project the light in substantially vertical direction, and the third may have prisms which project the light, let us say downwardly, at an inclination of forty-five degrees. By placing such a globe over an artificial light the light transmitted will to a great extent pass in the direction for which the different areas are calculated, and by partially rotating the globe about the light the sectors of illumination may be changed.

Figure 1 is a side elevation of a globe having its outer surface substantially covered with prisms, the prisms at one side of a vertical meridian being supposed to be of a form to project the light-rays horizontally, while at the other side of said meridian the rays are projected in inclined direction. Fig. 2 is a broken horizontal section of said globe, say, on line 2 2, Fig. 1, showing internal ribs on the globe. Fig. 3 is a side elevation of a shade, showing other forms of external prisms; and Fig. 4 is a bottom plan of said shade, showing three distinct diffusion areas on the outer surface, each area divided from its neighbor by a vertical line and each area covered by prisms of different construction from the adjacent area.

Without attempting to give the exact planes and angles of the prisms which cover the surface of the separate illuminating areas, which planes and angles can be calculated by an expert in this art, it will appear from the drawings that the horizontal ribs on the side A of the globe of Fig. 1 are different from the ribs or prisms on the side B, and the arrows are intended to indicate the direction of the transmitted light from said sides or areas. So it will appear that the areas C D E of Fig. 4 are each covered by prisms differing from the prisms of the adjacent area. The proximate ends of the prisms on the different illuminating areas need not terminate abruptly, but may gradually merge, if more desirable.

The internal ribbing or fluting shown in

Fig. 2 may or may not be employed, the same being old for the purpose of diffusion of light and being no part of the present invention.

5 The globes or shades are made by pressing in molds, and the mold-sections are made to conform to the principles of the present invention.

What I claim is—

1. An integral lamp-shade, of glass, having
10 its external surface covered with horizontal deflecting-prisms, such prisms divided by vertical lines into a plurality of areas, the prisms of one of these areas differing from the prisms of the adjacent area in the angles of their deflecting-faces, so that rays of light will be deflected at different angles, at opposite sides
5 of said vertical lines of division, substantially as described.

2. A glass lamp-shade having its external surface substantially covered by horizontal
20 deflecting-prisms, the prisms of one illuminating area being calculated to project transmitted light in a calculated general direction with reference to the horizontal, while the prisms of the adjacent area divided from the
25 first by a vertical meridian, are calculated to project transmitted light in a generally different direction with reference to the horizontal, substantially as described.

In testimony whereof I affix my signature 30 in presence of two witnesses.

OTIS A. MYGATT.

Witnesses:

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W. A. BARTLETT.