S. R. KNEELAND.

Lamp-Shade.

No. 164,380. Patented June 15, 1875.

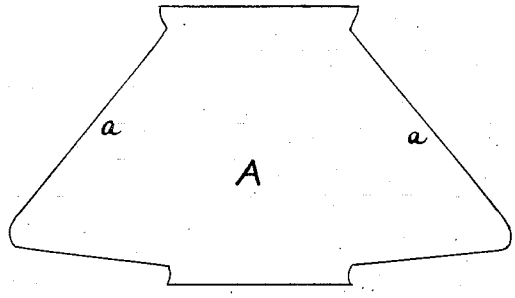

FIG. 1

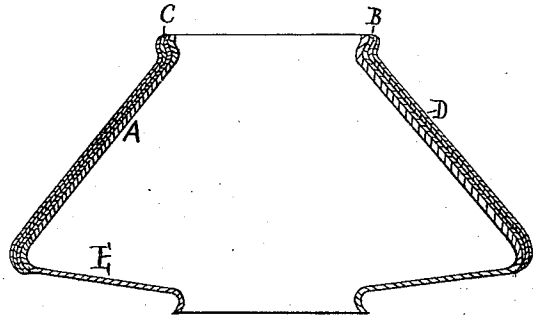

FIG. 2

Witnesses:

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H. E. Metcalf.

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UNITED STATES PATENT OFFICE.

SYLVANUS R. KNEELAND, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN LAMP-SHADES.

Specification forming part of Letters Patent No. **164,380**, dated June 15, 1875; application filed June 1, 1874.

To all whom it may concern:

Be it known that I, SYLVANUS R. KNEELAND, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Lamp-Shades, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a side elevation of my improved shade, and Fig. 2 a vertical section of the same.

Like letters of reference indicate corresponding parts in the different figures of the drawing.

My invention relates to that class of shades which are provided with reflectors; and consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a simpler, cheaper, and better article of this character is produced than is now in common use.

The form of my improved shade is that of a hollow conical frustum, open at the top, but partially closed at the bottom by the diaphragm or base E.

It is acknowledged that polished silver affords one of the best reflecting-surfaces known; but when such a reflector is applied to the inclined sides of an ordinary bell-shaped lamp-shade, the downwardly-reflected light will be found too powerful for the eyes, especially when the shade is employed with a portable lamp, or one which is necessarily stationed near the person using it. It has also been found difficult to protect the silver used as a reflector from injury when the same is applied to the outer side of the shade.

My invention is designed to obviate these objections and difficulties, and to this end I employ a ground-glass diaphragm, E, and protect the silver from injury by coating it with a coat of japan baking-varnish mixed with white and red lead, the varnish, after drying, being lacquered or bronzed, to improve its appearance.

In Fig. 2, A represents the sides of the glass shade; B, the reflecting-surface or silver-foil; C, the coating of varnish, and D the coating of lacquer. In the construction of the shade the inclined sides *a a* are left entirely plain, the diaphragm E being ground. The foil is then applied to the sides in the usual manner, and burnished, after which the varnish is applied to entirely cover the silver, and dried until thoroughly hard, completely protecting the silver from injury. After the varnish has been applied it is lacquered, preferably with silver lacquer, giving the shade a highly ornamental appearance, although the lacquer may be omitted without departing from the spirit of my invention. Other varnishes may also be substituted for the japan; but the latter is preferable, as it is not affected by the heat of the lamp.

The silver, being a powerful reflector, throws all of the rays downward, which, in passing through the ground-glass diaphragm, are broken up, producing a very strong but agreeable light.

In preparing the varnish I use about one proportion of red lead, one of white lead, and two of the varnish, making it of the proper consistency by ordinary spirits.

I am aware that it is not new to use silver in reflectors, or to grind the shades of lamps to break up and soften the rays of light passing through the same, and therefore I do not claim the same, broadly; but

What I claim is—

As a new article of manufacture, a glass lamp-shade consisting of a truncated conical portion, A, and diaphragm E, said diaphragm being translucent, and said conical portion being transparent and surrounded by a reflecting medium, B, protected by a layer of japan-varnish and lead, as set forth.

SYLVANUS R. KNEELAND.

Witnesses:

H. E. METCALF,

C. A. SHAW.