C. & A. C. WILHELM.

Lamp Shade.

No. 12,646. Patented April 3, 1855.

Fig. 1

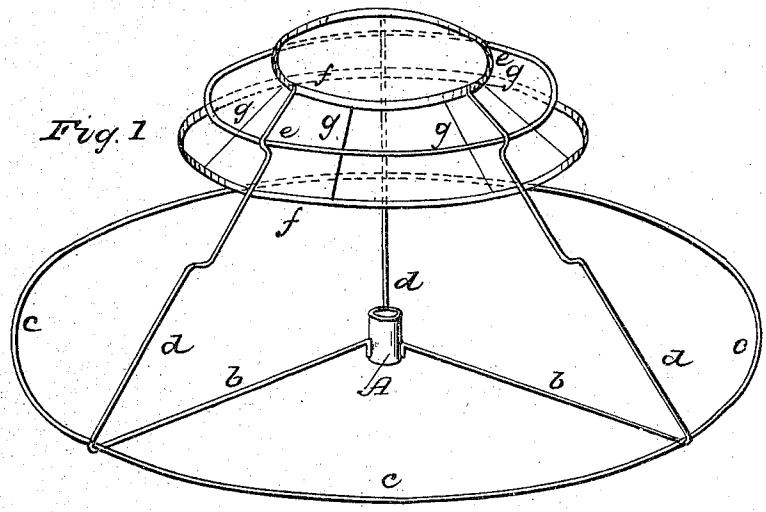
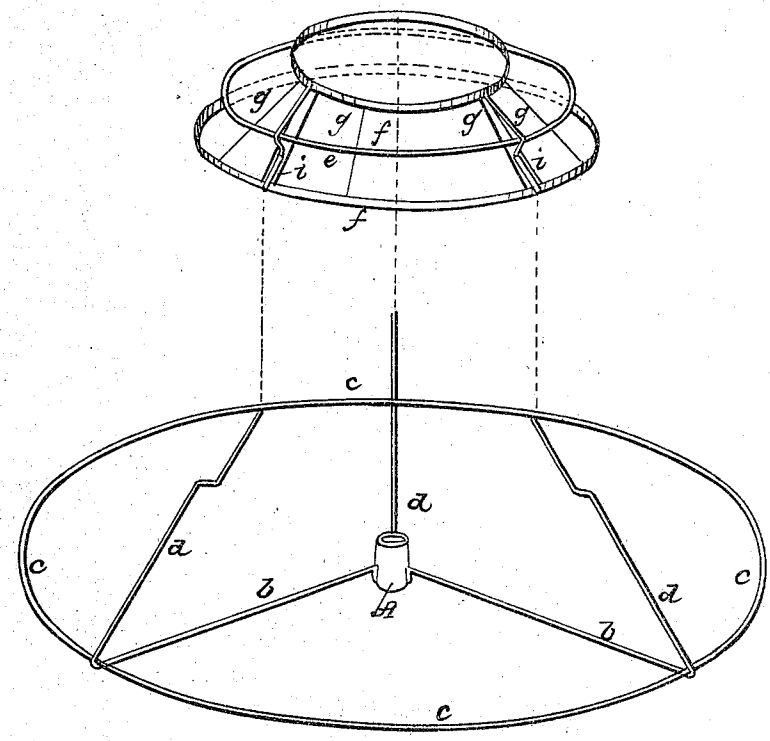


Fig. 2



UNITED STATES PATENT OFFICE.

CHARLES WILHELM AND ANNA C. WILHELM, OF PHILADELPHIA, PENNSYLVANIA.

PROTECTOR FOR LAMP-SHADES.

Specification of Letters Patent No. 12,646, dated April 3, 1855.

To all whom it may concern:

Be it known that we, CHARLES WILHELM and ANNA CATHARINE WILHELM, of the city and county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in the Construction of Frames for Lamp-Shades; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a perspective view of the frame, and Fig. 2 represents a modified form of the frame.

The nature of our invention consists in the introduction of mica, or any other equivalent transparent or translucent substance, between the shade and the flame, for the purpose of preventing the shade from taking fire, or from being scorched or marred by the heat, while at the same time there is no obstruction to the light.

To enable others skilled in the art to make and use our invention we will proceed to describe the same with reference to the drawings, first stating, however, that we are aware a metallic plate has been used near the top of the frame as a protector against the flame, in connection with an air passage between it and the paper shade. This metal protector throws down the light, while its shadow darkens the whole or nearly the whole of the upper part of the room. Beside this, the metal being a good conductor, becomes so hot, as to fade or stain the shade, if it does not burn it. We do not therefore lay claim to any metallic, opaque, or conducting material for this purpose, as such are objectionable on many accounts, some of which have been stated.

A represents a socket made to fit over a gas burner, but which may be enlarged for oil lamps, as the frame and shade over it is designed for both purposes. *b*, *b* are horizontal wires or arms, extending from said socket radially, to such distance as may be required to form the base of the dome, or truncated cone shaped frame,—*c* being the ring to which said arms are fastened at their outer ends. From this ring rises the braces *d*, *d*, so inclined as to contract the top of the frame, leaving just space enough for the heat or gas to escape, and at their tops, are united to a ring *e*. Between the rings *c*, and *e*, may be other rings if found necessary to stay, or further stiffen the frame.

f, *f*, are two circular metallic rings formed of tin or other thin metal, folded or bent so as to form flanges or grooves, into which grooves are slipped mica *g*, either in sections or in one entire piece. The mica being translucent or transparent, and a bad conducter of heat performs a double duty, viz, it allows the light to pass through without obstruction, and prevents the burning, scorching, or otherwise injuring or fading the paper shade which passes over the frame. Glass could not be used with any economy, as it would be liable to crack by the heat, and would beside retain so much heat as to endanger the paper shade. It possesses the transparent properties, but not the nonconducting properties of the mica, and is liable to be broken and not easily replaced.

Fig. 2 represents a modification of the frame wherein the mica portion of the frame may be attached to shade frames of the ordinary construction, and by which the frame may be shortened or lengthened in height to adapt it to paper shades already formed. In this plan the arms or braces *d* are cut off at or near the lower flanged ring *f*, and on said lower ring is soldered or otherwise formed sockets *i*, *i*, into which the ends of the braces are slipped, and by which the upper part of the frame is sustained, said upper part being capable of being slid up or down on said braces to a certain extent without displacing materially said braces, or cramping the ring.

Having thus fully described the nature of our invention we would state that, we are aware that a patent has been granted to M. B. Dyott for a lamp shade frame made of metal, in which he claims, " the arrangement of the shade, shield and wires or their equivalents with the intervening space substantially as described, for the protection of the shade." This we do not claim, but

What we do claim as new and desire to secure by Letters Patent, is—

The introduction of mica as a transparent non conducting material, between the shade and the frame, for the purpose of preventing the shade from taking fire, or being otherwise injured, while the light is as free to be reflected as though there was nothing interposed between them, substantially as described.

CHARLES WILHELM.
ANNA CATHARINE WILHELM.

Witnesses:
A. B. STOUGHTON,
I. H. GODDARD.