

(No Model.)

L. T. STANLEY.

REFLECTING SHADE FOR INCANDESCENT ELECTRIC LAMPS.

No. 481,288.

Patented Aug. 23, 1892.

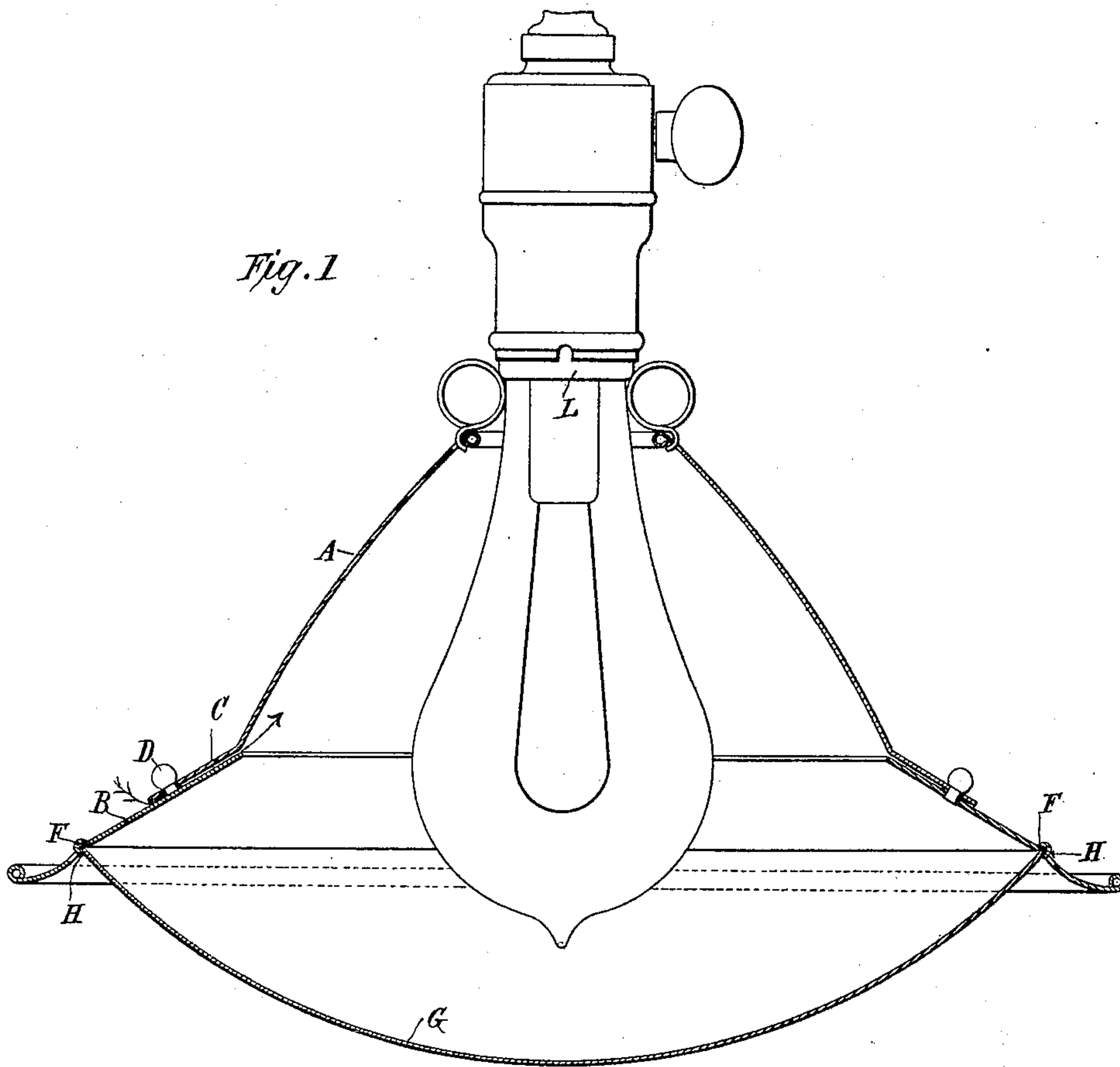


Fig. 2

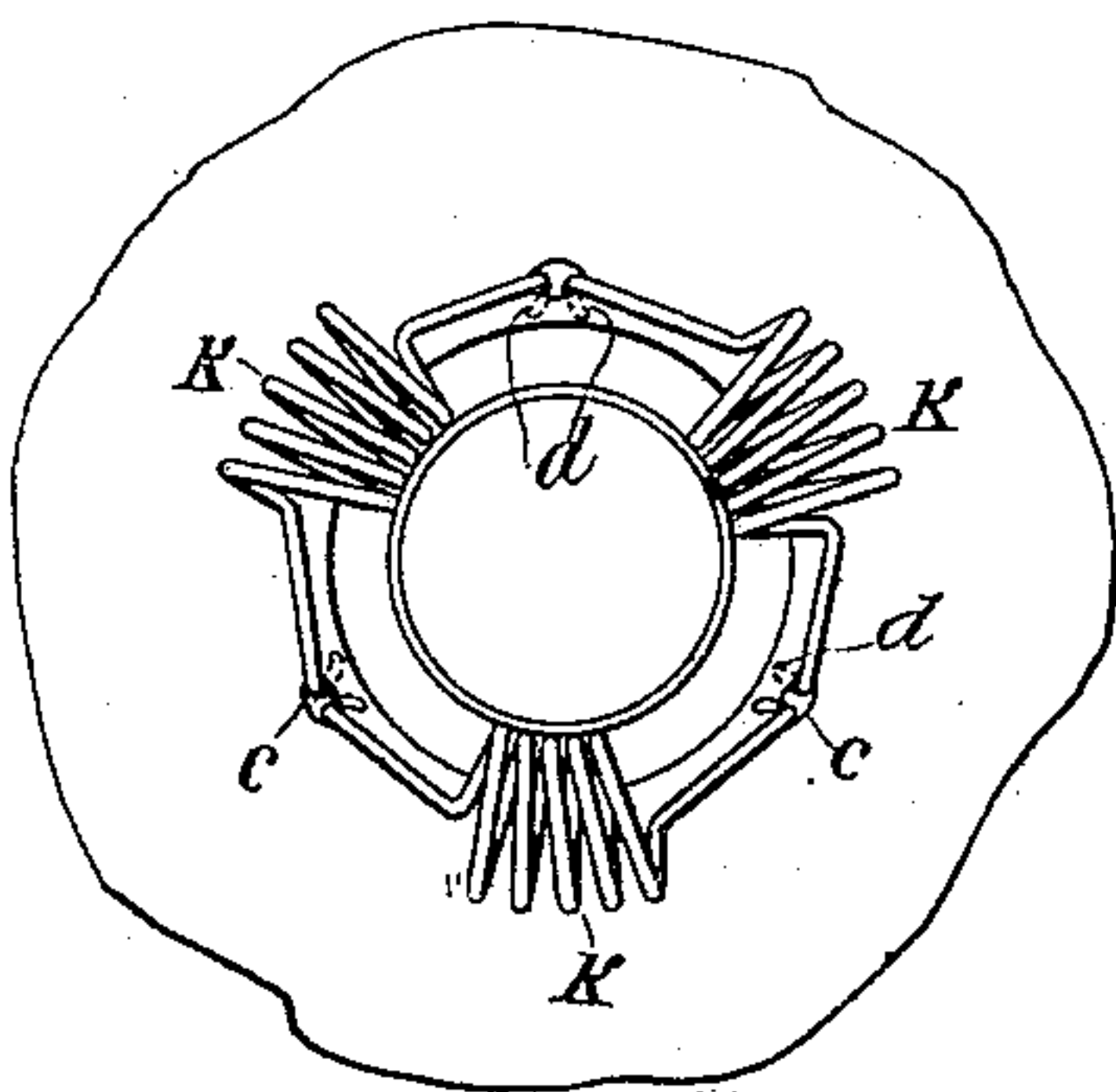
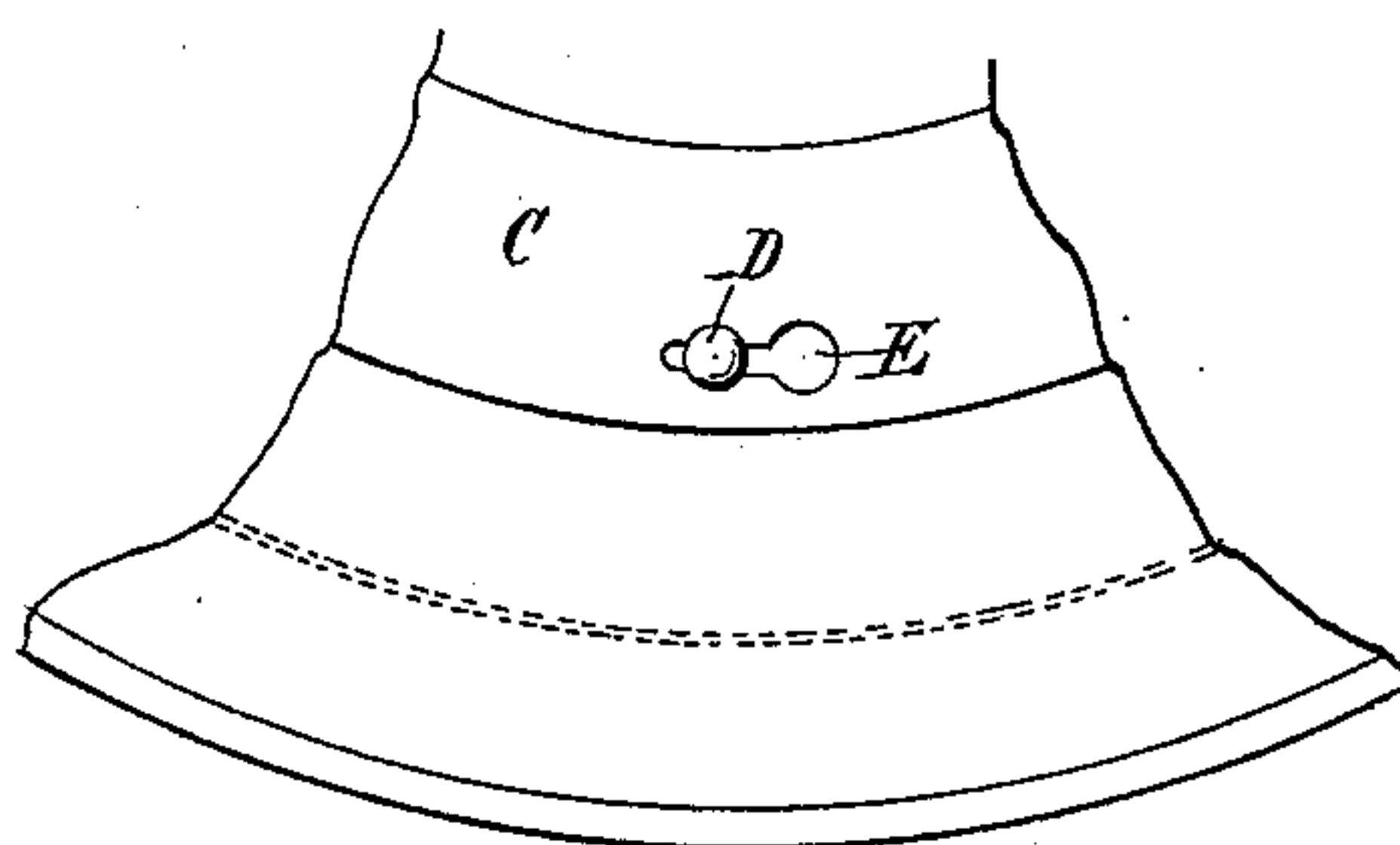


Fig. 3



Witnesses:
Frank B. Murphy.
Raphael Netter

Inventor
Lucius T. Stanley
by
Duncan & Page.
Attorneys.

UNITED STATES PATENT OFFICE.

LUCIUS T. STANLEY, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE CUTTER ELECTRICAL AND MANUFACTURING COMPANY, OF PHILADELPHIA, PENNSYLVANIA.

REFLECTING-SHADE FOR INCANDESCENT ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 481,288, dated August 23, 1892.

Application filed October 22, 1891. Serial No. 409,561. (No model.)

To all whom it may concern:

Be it known that I, LUCIUS T. STANLEY, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Reflecting-Shades for Incandescent Electric Lamps, of which the following is a specification, reference being had to the drawings accompanying and forming a part of the same.

My invention consists in a combined reflecting and diffusing shade for electric incandescent lamps.

The objects of my invention are to provide a shade of this character that may be readily attached to and detached from an incandescent lamp of any ordinary size or form or to any of the sockets for such lamps that are now in common use.

Another object of the invention is to construct the reflector in such manner that it will intercept nearly all the rays of light thrown off from the incandescent carbon and direct them into a given zone of illumination and at the same time to so diffuse a portion of such rays as to soften and shade off the boundary to such zone, so as to throw a strong yet soft light with no heavy shadows. To accomplish these objects I combine with a lamp a parabolic reflector, a conical reflector, and a ground or opalescent glass plate, each of which in well-known ways effects in a measure the result sought by me, but by which, when combined in accordance with my invention, I secure a greater amount of effective illumination from a given lamp as well as a more perfect diffusion of the light.

My improvements are illustrated in the accompanying drawings, in which—

Figure 1 is a vertical central section of the combined reflector and shade attached to a lamp. Fig. 2 is a top plan view of the means which I employ for attaching the same, and Fig. 3 is a plan view of the joint between the two reflectors.

A is the parabolic reflector, constructed and prepared in any suitable manner with a polished inner surface and provided with an opening of sufficient diameter to permit the passage of a lamp base or socket.

B is an apron formed as a truncated conical reflector which is secured to the edge of the reflector A, preferably by forming on the latter a flange C, which is caused to engage in any proper manner with the apron B. A simple way of accomplishing this is to insert headed pins D in the part B, which may enter the widened portions of slots E in the edge or flange C and form an ordinary bayonet-joint.

The reflector B is formed or provided with a continuous groove or annular seat F, into which is fitted the diffusion-plate G, of opalescent or ground glass, which is held in place by ears H H, punched out of the material of the reflector or apron B. This apron has several useful functions. It protects the glass from breakage. It aids in diffusing the light, and it shields the eyes from the glare of the light.

This shade may be attached to a lamp-globe or lamp-socket by any convenient holder; but I have devised a simple and efficient device for this purpose, which forms part of the shade itself. This consists of two or more, preferably three, spiral springs K, the ends of which are formed or provided with hooks *d d*, that are inserted in holes *c c*, located at equal distances apart around the rim of the opening in the reflectors A.

When the end of the neck of a lamp with the shank E attached is passed up through the opening in the reflector and between the spiral springs, the latter, pressing upon the neck between the shoulder of the shank and the enlarging sides of the globe, hold the shade securely in place.

In practice the annular flange C does not fit so closely to the reflecting-apron B but that there is an air-space between them, not sufficient to permit the passage of any sensible amount of light, but enough to constitute, in connection with the opening at the top of the reflector A, a perfect means of ventilating the inside of the shade and preventing the same from overheating. The parts C and B in Fig. 1 are shown as slightly separated to illustrate this feature.

I prefer to make the two reflecting portions A and B of my improved shade of aluminium;

but other materials may be used, and various well-known ways of fashioning or forming the several parts may be followed.

It will be observed that when the incandescent lamp is in position in this reflector the rays from the illuminated carbon are received by and reflected from both the parabolic and the conical portions of the shade, which produces a very desirable double effect. The parabolic portion tends to concentrate the main portion of the rays into a limited zone of illumination, which yields the most desirable light for reading or other purposes where a certain concentration is desired; but the remaining rays are dispersed by the conical portions, whereby the boundaries of the zone of more intense light are shaded off and sufficient light diffused to light up surrounding spaces to a considerable extent, while all rays are softened by the glass.

Reflecting-shades as ordinarily constructed are not as well suited as this one for general use, for the reason that no provision is made for concentration of a part of the rays and dispersion of others.

What I claim is—

1. A reflecting-shade for incandescent lamps, consisting in the combination of a parabolic reflecting portion provided with a contracted opening for the reception of the lamp

neck or socket and of such depth as to permit the incandescent conductor or light-giving portion of a lamp when in position in the shade to extend or project out beyond the edge of the said parabolic portion, a conical or outwardly-flaring rim or portion extending from the parabolic part below the incandescent conductor, whereby both portions will receive directly the lateral rays of light, and a diffusing or translucent plate covering the open end of the shade, as set forth.

2. The combination, with a reflecting-shade for incandescent lamps having a contracted opening for the passage of the lamp neck or socket, of three spiral springs around the opening and above or outside the shade and having their ends secured or connected to the shade at points around the edge of the opening, as set forth.

3. The combination, with the parabolic reflecting-shade A, having a flange C, of an annular reflecting-apron B, secured to said flange, with an intermediate air-space, and a diffusion-glass closing the lower opening of the shade, as set forth.

LUCIUS T. STANLEY.

Witnesses:

FRANCIS G. GALLAGER,
GEO. H. WENTZ.