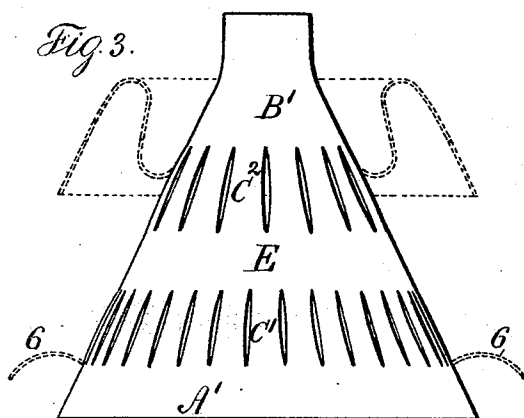
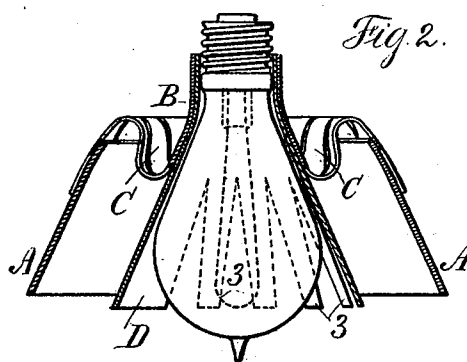
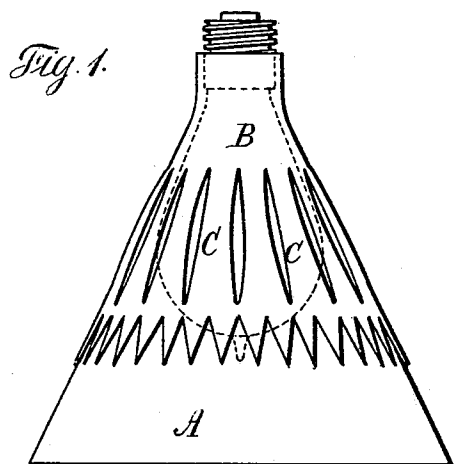


(No Model.)

F. E. KNIGHT & H. S. SMITH.
SHADE FOR LAMPS.

No. 520,649.

Patented May 29, 1894.



Witnesses:

J. Strait
Charles Smith

Inventors:

Frank E. Knight
Herbert S. Smith
per Lemuel W. Serrell
Att'y

UNITED STATES PATENT OFFICE.

FRANK. E. KNIGHT, OF NEW YORK, AND HERBERT S. SMITH, OF BROOKLYN,
NEW YORK.

SHADE FOR LAMPS.

SPECIFICATION forming part of Letters Patent No. 520,649, dated May 29, 1894.

Application filed June 3, 1893. Serial No. 476,434. (No model.)

To all whom it may concern:

Be it known that we, FRANK. E. KNIGHT, residing at the city and State of New York, and HERBERT S. SMITH, residing at Brooklyn, in the county of Kings and State of New York, citizens of the United States, have invented an Improvement in Shades for Lamps, of which the following is a specification.

This shade is especially adapted to incandescent electric lamps and it is adapted to concentrating the light upon a desk or table or for allowing the light to pass unobstructedly or nearly so around the room. With this object in view the lower part of the shade can be either pushed up and remain above the light or it can be pulled down so as to surround the lamp and concentrate the light below such lamp.

In the drawings, Figure 1 is an elevation of the improved shade when drawn down. Fig. 2 is a section of the shade when elevated. Fig. 3 is an elevation of the shade in a modified form.

Our shade while specially adapted to incandescent electric lamps, is not necessarily limited in its use, and the general configuration of the shade may be conoidal, pyramidal or a segment of a sphere or ellipsoid, and although the shade is shown and spoken of as conoidal, we are not limited in this particular.

The material for the shade may be paper, muslin, celluloid or other suitable substance.

The shade is advantageously made of paper or paste-board and the lower or rigid portion A of the shade is connected to the upper rigid portion B by the strips C, which strips may be separate and connected at their respective ends to the upper and lower portions A and B of the shade, or such strips may be formed by cutting openings in a piece of paper or other material, the openings between the strips being of the proper width and shape for allowing the movement hereinafter mentioned to be given to the respective parts.

The upper part B of the shade is suitably connected with the head of the electric lamp or other support and hence when the lower section A of the shade is drawn down the strips C occupy a straight or nearly straight position between the upper part B and the

lower part A of the shade, and when the lower part A is pushed up the strips C allow the movement and assume an upward compound curved position, as indicated in Fig. 2, each strip being free to bend independently of the adjacent strips during this movement, and these strips C will hold the shade up, hence no other sustaining device is required, and in this position the light may shine freely around the room, and when the light is to be concentrated it is only necessary to draw down the section A of the shade into the position indicated in Fig. 1. If the parts before described alone were made use of the light would shine out between the strips C when the lower section A was drawn down. To avoid this a second set of strips 3 may be applied between the upper and lower sections A and B, the second set of strips coming behind the openings between the first set of strips; we however find it advantageous to make use of the secondary shade D of a conoidal form with one side closed and with the other side cut into tongues or strips 3 which come opposite to the openings between the strips C and prevent the passage of light between the strips C when the shade is drawn down, and when the shade is pushed up the tongues or strips 3 serve to render the light that passes out into the room mellow and agreeable to the eyes, and the solid portion of the secondary shade D may act as a reflector and prevent the rays of light passing where they are not desired.

In Figs. 1 and 2 the shade is represented with but two sections A and B, but when the shade is desired of a considerable length the same may be made of three sections, the lower section A' and the upper section B' and the intermediate section E and with the strips C' and C² applied between the respective sections, so that when the shade is pushed up it may assume the position indicated by the dotted lines in Fig. 3 and may be entirely above the light.

If desired the paper or other material may be so cut that tongues may be left between the strips connected at one end to the shade, the tongues being formed of the paper that is removed between one strip and the next, and

such tongues may project as indicated by dotted lines at 6, 6 to form ornaments.

When the shade with three sections is used the light may be partially shielded by pushing up one of the sections, or entirely uncovered by pushing up both of the sections.

With the shade having an auxiliary shade within it with the tongues C, some light may be allowed to shine through the slits when the shade is partially turned sufficiently to cause them to correspond.

We claim as our invention—

1. The combination in a conoidal lamp shade of an inner stationary shade, and an outer shade attached to the inner shade at the top portion only and made flexible in the middle portion to allow said outer shade to be pushed up or itself to elevate the lower edge or the reverse substantially as specified.

2. A shade for a lamp having the smaller upper section B connected to the lower and larger section A by flexible strips that support the lower section and hold the same when either in an elevated or a depressed position, and a second range of strips covering the space between the first range of strips, substantially as set forth.

3. A shade for a lamp having the smaller

upper section B connected to the lower and larger section A by flexible strips that support the lower section and hold the same when either in an elevated or a depressed position, in combination with a secondary shade within the outer shade and having tongues or strips, substantially as set forth.

4. A shade for a lamp having the smaller upper section B connected to the lower and larger section A by flexible strips that support the lower section and hold the same when either in an elevated or a depressed position, in combination with a secondary shade within the outer shade and having tongues or strips and one side closed, substantially as set forth.

5. A conoidal shade having upper and lower portions connected together by intermediate strips that are flexible, and the incisions or openings between the strips to allow such strips to bend independently of each other as the bottom section of the shade is raised or lowered, substantially as set forth.

Signed by us this 29th day of May, 1893.

FRANK. E. KNIGHT.
HERBERT S. SMITH.

Witnesses:

GEO. T. PINCKNEY,
A. M. OLIVER.