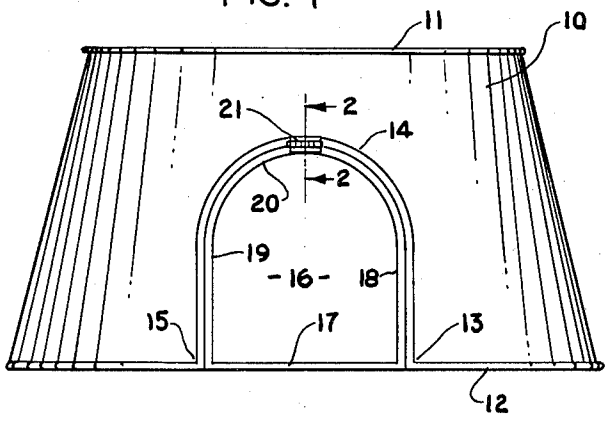
May 13, 1958 E. F. GROHSKOPF 2,834,875

SIDE-OPENING LAMP SHADE

Filed July 30, 1956

FIG. 1



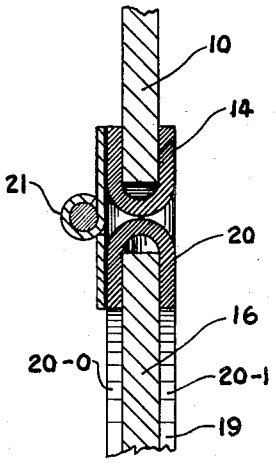


FIG. 2

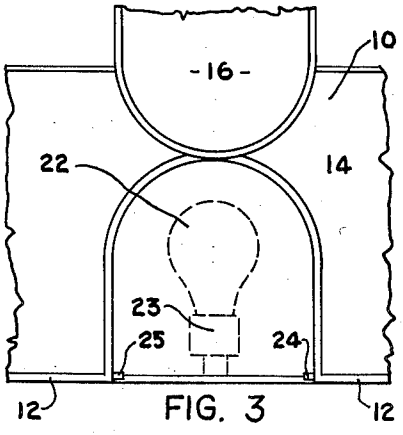


FIG. 3

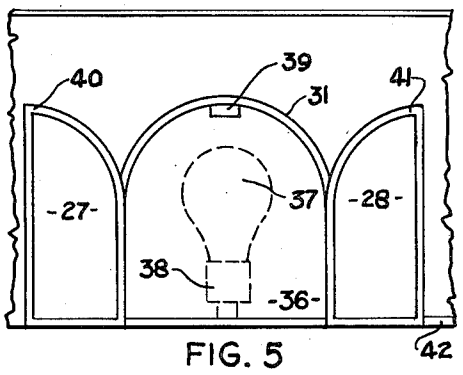


FIG. 5

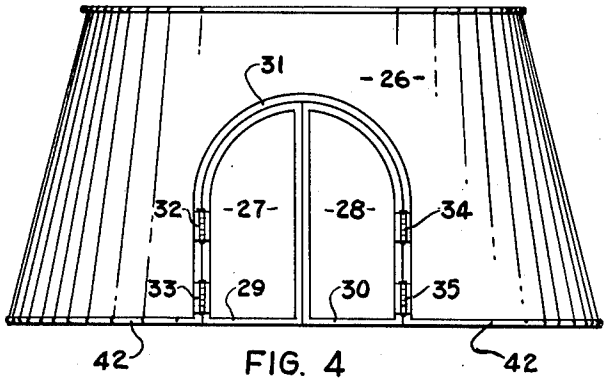


FIG. 4

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SIDE-OPENING LAMP SHADE

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3 Claims. (Cl. 240—108)

This invention relates to lamp shades, and more particularly to the conformation and construction of a lamp shade having sections thereof hinged to open laterally to provide a clear direct light upon a predetermined adjacent area.

The main function of currently available lamp shades is to direct the light upwardly and downwardly from the central source of illumination and to diffuse and soften the portion of light which is transmitted laterally; and to this end, shades are customarily open at the top and bottom and are more or less obscure and colored throughout their generally vertical surface areas. As a consequence, particularly in the case of table lamps, the light provided by them is inadequate for any close work and quite often for normal reading purposes.

Efforts have been made to overcome this problem by equipping the shade with tilting means by which it can be tilted or moved relative to the bulb or light source, but this has proved unsatisfactory since the bulb is thereby permitted to shine directly into the eyes of persons nearby.

My invention has been made with the foregoing considerations in mind and can be said to have a plurality of important objectives.

One important object of my invention is the provision of a lamp shade being adapted with side-opening means whereby segments of the lateral surface of the shade may be opened to enable direct rays from the bulb to shine upon predetermined work surfaces.

Another important object of the invention is the provision of a lamp shade device of the character described adapted with hinge means enabling apertures in the sidewall of the shade to be opened or closed.

A further important object of my invention is the provision of a lamp shade device of the character described in which the hinge means are of the friction type and adapted to hold the outwardly swinging shade sections in any predetermined position.

An additional important object of my invention is the provision of a shade device of the character described which is adapted for use with lamp shades of many sizes and shapes and is of simple and inconspicuous construction.

In brief, my invention includes a conventional lamp shade having sections in the sidewall thereof which are hinged to swing outwardly and thereby permit the light from the bulb to shine directly over a predetermined area which would otherwise be shaded by the lamp shade.

The movable sections actually constitute small doors and are provided with stiffened frames and friction type hinges so that they are self-supporting and are held by the hinges at any outward angle desired.

Certain variations of the embodiment disclosed herein and further important objects of the invention will become apparent to persons familiar with the art in the following detailed specification when examined together with references made therein to the drawings, in which:

Figure 1 is a side elevational view of a lamp shade having a hinged section therein;

Figure 2 is a sectional view of the sidewall of the lamp taken along the line and in the direction indicated by the arrows 2—2 in Figure 1;

Figure 3 is a fragmentary view taken from Figure 1 showing the hinged section disposed upwardly and outwardly of the normal periphery of the shade;

Figure 4 is a side elevational view showing a variation of the embodiment seen in Figure 1 including two hinged sections, and

Figure 5 is a fragmentary view showing the hinged sections of Figure 4 as they appear when swung to the open position.

Reference is again made to Figure 1 in which the numeral **10** designates a lamp shade constructed according to my invention and having an upper circumferential rim **11** and a lower circumferential rim **12** which are spaced apart by vertical members not seen in the figure. The lower rim **12** is seen to bend upwardly at right angles at the corner **13** and is arcuately conformed around the top **14** and downwardly to the corner **15** from which it is continued in coplanar alignment with the rim portion indicated at **12**.

The lower rim **12** and the upwardly arched section **14** thereof from the corner **13** to **15** are, in this particular embodiment, of channellar construction being substantially U-shaped in cross sectional conformation as is better seen at **14** in Figure 2.

The movable section **16** is also provided with a channellar frame the base of which is shown at **18** to be in substantial alignment with the lower rim **12** of the shade, and the arcuate upper rim **20** is concavo-convex in form so as to follow the generally cylindrical tapered form of the sidewall of the shade **10**. The frame of the movable section **16**, including the base **17**, the arcuate upper rim **20** and the generally parallel sides **18** and **19**, is solidly joined so that it constitutes a structurally rigid member, and is connected to the rim **14** of the shade by the hinge member **21** which is also better seen in the sectional view of Figure 2 which is taken along the line and in the direction indicated by the arrows **2—2** in Figure 1.

In the sectional view of Figure 2 the generally U-shaped form of the channel sections **14** and **20** is clearly shown in their relative positioning with respect to the hinge member **21** which is affixed to the two channel sections over the upper point of contact thereof. A fragmentary portion of the sidewall of the shade above the hinge **21** is designated by the numeral **10**, and the inner panel of the movable section is seen at **16**. The sidewall and the panel material is retained within the channellar rims by suitable adhesive means if the material is flexible, and by crimping the inner and outer edges, as seen at **20–1** and **20–0**, of the channelled rims along the edges of stiff material such as parchment or sheet plastic.

In actual practice, and particularly in cases where stiff material such as heavy paper, parchment or sheet plastic material is used, the actual piece of material such as the panel **16** which is cut out of the shade **10** to form the aperture in lamp sidewall, is utilized for the panel material of the movable section, and the advantage of the U-shaped rim in this connection is obvious.

In Figure 3 the movable section **16** is shown disposed upwardly of the frame **14** of the lamp shade **10** with the light bulb **22** and socket therefore **23** indicated in phantom to show their relative positioning interiorly of the shade **10**. In this figure it will be observed that the lower rim **12** of the shade **10** is provided with extension members **24** and **25** disposed inwardly of the aperture from the inner edge of the rim **12** which act as stops to

engage the lower edge 17 of the movable section 16 when the latter is lowered into the closed position.

A variation of the foregoing embodiment is seen in Figure 4 in which the shade 26 is provided with a pair of oppositely symmetrical movable sections 27 and 28 which are provided with channellar rims 29 and 30 respectively and are hinged to the inset rim 31 of the shade 26 by the hinges 32, 33 and 34 and 35. In the fragmentary view of Figure 5 the movable sections 27 and 28 are seen to be swung outwardly on their hinges thereby providing an unobstructed aperture 36 therebetween interiorly of which an electric light bulb 37 and socket therefore 38 are shown in phantom to indicate the position of the light source relative to the aperture 36.

Also in Figure 5, a stop member 39, positioned at the top of the arcuate rim 31 is also seen to be extended downwardly from the inner surface of the rim 31 so as to engage the upper corners of the movable sections at the points designated by the numerals 40 and 41.

As has been previously mentioned, the various hinges are of the friction type adapted to remain in any position to which they are adjusted and therefore serve to hold the movable sections of the shade at any desired angles so that they may serve not only to provide openings but as shields to prevent the light from the bulb 37 from shining in the eyes of persons seated nearby.

As was the case with the particular shade form shown in Figure 3, the aperture 36 in Figure 5 is completely open and the lower channellar rim 42 is inset upwardly as at 31 around the aperture 36 and does not extend across the bottom of the aperture as might be supposed from a casual inspection of the drawing.

Numerous modifications and variations of the present invention will occur to those skilled in the art after a careful study hereof. All such, properly within the basic spirit and scope of the present invention are intended to be included and comprehended herein as fully as if specifically described, illustrated and claimed herein.

The exact compositions, configurations, constructions, relative positionings, and cooperative relationships of the various component parts of the present invention are not critical, and can be modified substantially within the spirit of the present invention.

The embodiments of the present invention specifically described and illustrated herein are exemplary only, and are not intended to limit the scope of the present invention, which is to be interpreted in the light of the prior art and the appended claims only, with due consideration for the doctrine of equivalents.

I claim:

1. A side-opening lamp shade, comprising: a substantially conventional lamp shade having an upper supporting rim and a lower supporting rim and a generally upwardly directed sidewall disposed therebetween; a section of said lower rim and said sidewall being separated from said shade, providing a lateral door-aperture therein; said lower rim of said shade being provided with an aperture edge rim extending along the edge of said door-aperture; and being of U-channel conformation having parallel sides receiving, effectively holding, and supporting in a rigid manner therebetween edge portions of said sidewall of said shade defining said lateral door-aperture; said separated section of said lower rim being provided with a door edge rim extending around the outer edge of said separated sidewall section and being of U-channel conformation having parallel sides receiving, effectively holding, and supporting in a rigid manner therebetween edge portions of said separated sidewall section and effectively defining a door dimensioned to interfit within said aperture edge rim extending along the edge of the door-aperture; frictional hinge means fastened to said aperture edge rim carried by said shade and also fastened to said door edge rim carried by said door, said frictional hinge means normally frictionally mounting and holding said door within said aperture and in substantial peripheral alignment with said sidewall of said shade, said frictional hinge means including two hinge portions forcibly frictionally engaged in interleaved frictional contact with each other and frictionally pivotally cooperable to fixedly support said door in rotatively displaced position with respect to said aperture at any predetermined outwardly projecting angle with respect to said sidewall of said shade; and stop means carried by said rim extending inwardly with respect to said aperture along the inner edges of said rim and abuttingly cooperable with said door holding same in substantial peripheral alignment with said sidewall of said shade when said door is closed with respect thereto.

2. A side-opening lamp shade, comprising: a substantially conventional lamp shade having an upper supporting rim and a lower supporting rim and a generally upwardly directed sidewall disposed therebetween; a section of said lower rim and said sidewall being separated from said shade, providing a lateral door-aperture therein; said lower rim of said shade being provided with an aperture edge rim extending along the edge of said door-aperture and being of U-channel conformation having parallel sides receiving, effectively holding, and supporting in a rigid manner therebetween edge portions of said sidewall of said shade defining said lateral door-aperture; said separated section of said lower rim being provided with a door edge rim extending around the outer edge of said separated sidewall section and being of U-channel conformation having parallel sides receiving, effectively holding, and supporting in a rigid manner therebetween edge portions of said separated sidewall section and effectively defining a door dimensioned to interfit within said aperture edge rim extending along the edge of the door-aperture; said aperture edge rim and said door edge rim each including a substantially laterally directed portion at the top thereof; frictional hinge means centrally fastened to said upper laterally directed portions of said aperture edge rim and said door edge rim, said frictional hinge means normally frictionally mounting and holding said door within said aperture and in substantial peripheral alignment with said sidewall of said shade, said frictional hinge means including two hinge portions forcibly frictionally engaged in interleaved frictional contact with each other and frictionally pivotally cooperable to fixedly support said door in upwardly rotatively displaced position with respect to said aperture at any predetermined outwardly projecting angle with respect to said sidewall of said shade; and a pair of stop members extending inwardly with respect to said aperture along the inner edges of said lower rim of said shade and abuttingly cooperable with the lower edge of said door holding same in substantial peripheral alignment with said sidewall of said shade when said door is closed with respect thereto.

3. A side-opening lamp shade, comprising: a substantially conventional lamp shade having an upper supporting rim and a lower supporting rim and a generally upwardly directed sidewall disposed therebetween; a pair of symmetrical adjacent separate sections of said sidewall and said lower rim being separated from said shade, providing a lateral door-aperture therein; said lower rim of said shade being provided with an aperture edge rim extending along the edge of said door-aperture and being of U-channel conformation having parallel sides receiving, effectively holding, and supporting in a rigid manner therebetween edge portions of said sidewall of said shade defining said lateral door-aperture; each of said pair of separated sections of said lower rim being provided with a door edge rim extending around the outer edge of a different one of said pair of symmetrical adjacent separated sidewall sections and being of U-channel conformation having parallel sides receiving, effectively holding, and supporting in a rigid manner therebetween edge por-

tions of the sidewall of the corresponding one of said pair of symmetrical adjacent separated sidewall sections and effectively defining a pair of symmetrical laterally adjacent separate doors dimensioned to interfit within said aperture edge rim extending along the edge of said door-aperture; said aperture edge rim ad the corresponding door edge rim of each of said doors including two substantially vertical laterally spaced portions at the sides thereof; frictional hinge means laterally fastened to each of said vertical portions of said aperture edge rim and said door edge rims, said frictional hinge means normally frictionally mounting and holding each of said laterally adjacent doors within said aperture and in substantial peripheral alignment with said sidewall of said shade, each of said frictional hinge means including two hinge portions forcibly frictionally engaged in interleaved frictional contact with each other and frictionally pivotally cooperable to fixedly support each of said doors in

outwardly rotatively displaced position with respect to said aperture at any predetermined outwardly projecting angle with respect to said sidewall of said shade; and a stop member extending centrally downwardly with respect to said aperture along the inner upper edge of said aperture edge rim and abuttingly cooperable with the upper door edge rim of each of said doors holding both of same in substantial peripheral alignment with said sidewall of said shade when said doors are closed with respect thereto.

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