March 16, 1948. M. KOHN 2,437,825

LAMPSHADE

Filed April 19, 1946

Fig 1

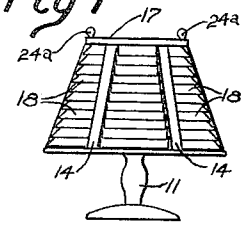


Fig 2

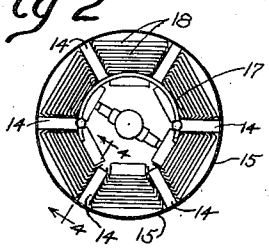


Fig 4

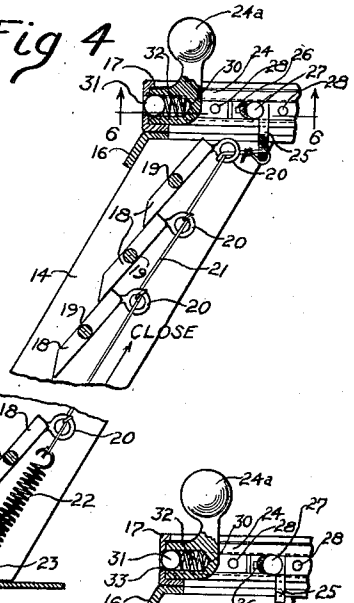


Fig 3

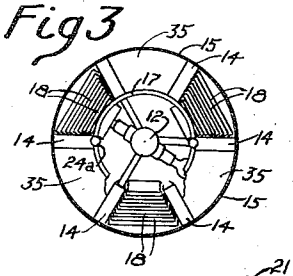


Fig 5

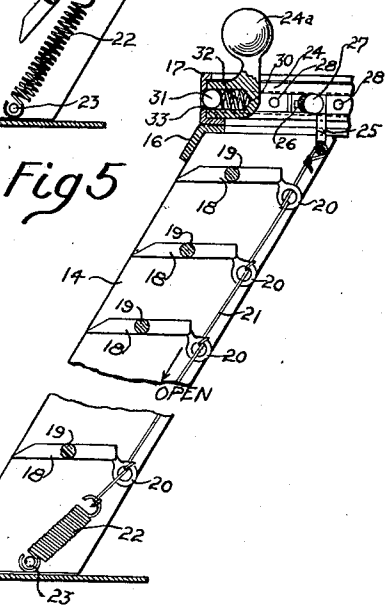


Fig 6

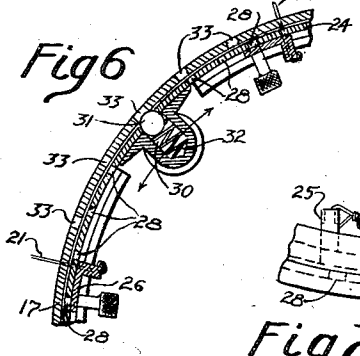


Fig 7

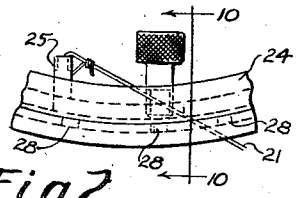


Fig 8

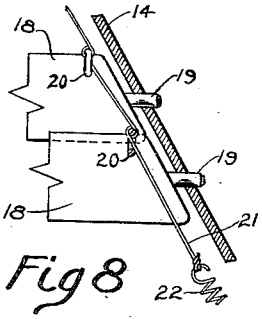


Fig 9

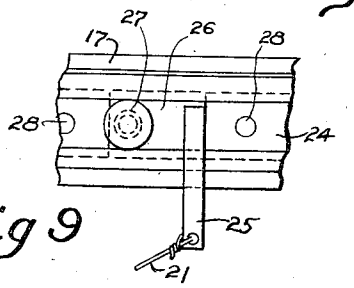
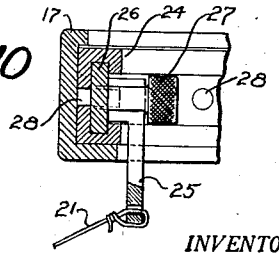


Fig 10



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Patented Mar. 16, 1948

2,437,825

UNITED STATES PATENT OFFICE

2,437,825

LAMP SHADE

Max Kohn, Brooklyn, N. Y.

Application April 19, 1946, Serial No. 663,548

6 Claims. (Cl. 240—108)

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This invention relates to lamp shades and, in particular, to the provision of a new and improved lamp shade embodying means for selectively controlling the direction of light rays from a light source associated therewith.

It is an object of this invention to provide such a lamp shade comprising a plurality of joined panels at least some of which are formed by a series of operatively connected blades or vanes which may be angularly adjusted, selectively to control the amount of light passing outwardly through the panel formed thereby as well as the direction of the aforesaid light.

It is a further object of this invention to provide such a lamp shade which incorporates common control means for manually controlling the vanes or blades of a plurality of said panels concurrently.

It is a further object of this invention to provide such control means including means for controlling or adjusting the blades or vanes of the individual panels independently of the adjustment of the blades or vanes of the other panels.

These and other objects and advantages of this invention will appear from the following description and the drawing forming a part thereof, and will be pointed out in the appended claims.

In the drawing:

Fig. 1 is a view in elevation, of an electrical lamp provided with a shade embodying the principles of this invention;

Fig. 2 is a top plan view of the structure shown in Fig. 1, partly broken away in the interest of clear disclosure;

Fig. 3 is a view similar to Fig. 2 of a modified form of lamp shade according to this invention;

Fig. 4 is a fragmentary enlarged view in section, and partially diagrammatic, taken substantially on the plane indicated by the line 4—4 in Fig. 2 with the blades of one panel shown in closed position;

Fig. 5 is a view similar to Fig. 4 but showing the blades of the aforesaid panel in open position;

Fig. 6 is a fragmentary detail in section, taken substantially on the plane designated by the line 6—6 in Fig. 4;

Fig. 7 is a fragmentary top plan view showing a part of the structure illustrated in Fig. 6;

Fig. 8 is a fragmentary diagrammatic view illustrating the manner in which the blades of the panels are operatively connected;

Fig. 9 is a view, in elevation, of the structure shown in Fig. 7; and

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Fig. 10 is a section taken substantially along the plane indicated by the line 10—10 in Fig. 7.

Referring to the drawing, and with reference to Figs. 1 and 2, the illustrated lamp comprises a conventional base 11 with suitable fixture 12 for supporting conventional lamp bulbs and having suitable known means (Fig. 3) for supporting the frame of the lamp shade.

The frame comprises a plurality of radially spaced channels 14 rigidly connected at their lower ends by the annular frame base 15 and at their upper ends by the annular angle member 16 upon which is superposed and rigidly connected the annular channel member or retainer 17 which forms a guide in the blade or vane control means as will hereinafter appear.

The frame members 14, 15, 16 and 17 define a plurality of generally upright panel spaces each of which is provided (in the embodiment of Figs. 1 and 2) with a series of operatively connected blades or vanes 18 of suitably varied length and suitably spaced to overlap in their closed position (Fig. 4). These blades or vanes are provided with a pin or trunnion 19 at each end which is suitably journalled in the adjacent flange of the channel member 14 next to that end.

Each blade or vane 18 is also provided with an "eye" or loop 20, the eyes or loops 20 of the blades or vanes 18 in each panel being preferably aligned.

A flexible connection comprising a cord, cable or the like 21 is provided between the vanes or blades 18 of each panel, being connected by loops to the eyes 20 thereof as shown in Fig. 8 and being connected at its lower end to yieldable tensioning means such as the spring 22 which is secured in suitable location to the rigid frame, preferably to the flange of the adjacent frame member 14 by means of a pin 23 as shown in Figs. 4 and 5.

If desired, inflexible connections (not shown) may be provided between the respective blades or vanes 18, and the flexible member 21 connected between one of these blades or vanes and the vane control means, one of the blades or vanes being also operatively connected directly with the spring 22, as will be readily understood.

This spring 22 always yieldingly urges the blades toward the position of Fig. 5 by reason of the connection provided between the blades or vanes because of the looping of the cord or cable 21 through the eyes or loops 20. The means for controlling this movement, and for overcoming it to move the vanes from the position of Fig. 5 toward the position of Fig. 4 comprises a rotat-

ably adjustable control member in the form of a flanged ring 24 supported within the channels of the above described stationary channel member or retainer 17 as shown in Figs. 4, 5, 6, 7, 9 and 10. Secured to this ring 24 is a depending arm or bracket 25 for each panel of adjustable blades to which bracket the upper end of the corresponding member 21 is secured as shown in Figs. 7, 9 and 10.

While the arms or brackets 25 may be fixed rigidly to the ring 24, they are shown adjustably secured thereto for a purpose which will hereinafter appear.

As shown, these arms or brackets 25 each terminate upwardly in a shoe or plate 26 slidable in the flanges of the control ring 24 and through which extends a manually controllable outwardly spring urged pin 27 engaging with one of a suitably located series of radially spaced apertures or sockets 28 in the ring 24. If desired, the blades or vanes of one panel (or more) may be released from the control of the ring 24 by placing its pin 27 in its appropriate socket or recess 28 as shown in Fig. 9 suitably to adjust slack in the member 21 above the blades whereupon the blades or vanes in that panel will be maintained entirely closed by the spring 22 of that panel irrespective of the adjustment of the blades or vanes of the other panels, or wherein these blades or vanes will be partially closed when the others are open, depending upon which of its sockets 28 receives the pin 27 of that panel.

The means for simultaneously adjusting the blades or vanes 18 in all panels (irrespective of adjustment of the individual arms 25 as described above) comprises one or more handles 24*a* fixed to the control ring 24 at least one of which houses a detent mechanism including a radial bore 30 extending through the ring 24 and retaining a ball 31 which is backed by a compression spring 32 urging it outwardly toward the surrounding retainer or frame member 17. The frame member or retainer 17 is provided with a plurality of apertures 33 of suitable size and spacing for engagement with the ball 31 (Figs. 4, 5 and 6) to define the various positions of adjustment of the ring 24 with respect to the retainer 17. This relative position of members 24 and 17 controls the position of the various arms 25 through which the position of the vanes 18 of the respective panels is controlled, as described above.

As shown in Fig. 3 the movable and controllable vanes 18 may be omitted from one or more of the panel spaces formed by the frame members 14, 15 and 16 and a solid panel 35 substituted therefor. In such cases the ring 24, handles 24*a*, etc. control the arms 25 of each panel having movable blades or vanes 18.

Operation

In setting the shade, the control ring 24 is placed in one of its predetermined positions wherein the ball 31 engages one of the apertures 33 in the retainer 17. By manipulation of the individual panel controls the shoes 26 are placed in such position with respect to the control ring (wherein the pins 27 thereof engage the appropriate recesses or apertures 28) that all blades or vanes 18 of all panels are in open position as shown in Fig. 5. Then movement of the control ring 24 clockwise as seen in Figs. 2, 3 and 6 will cause rotation of the vanes or shutters 18 from the position of Fig. 5 toward the closed position of Fig. 4. The degree of this movement will depend upon which aperture or recess 33 engages the ball 31 of the control ring detent mechanism.

Alternatively, when the vanes are in the position of Fig. 5, the vanes of an individual panel may be closed (completely or partially) by adjusting its arm or bracket 25 the appropriate amount. This is done by disengaging its shoe 26 for movement with respect to the control ring, then moving the shoe 26 the appropriate amount, clockwise as seen in Figs. 2, 3 and 6, and then engaging the pin 27 with the proper recess or aperture 28 to retain the blades or vanes of this panel in the appropriate position.

A particularly advantageous use of the control means may be made where a lamp equipped therewith is disposed between a pair of twin beds where only one of the occupants wishes to read. In that case the blades or vanes 18 of all panels are first closed (Fig. 4) and then by appropriate adjustment of one shoe 26 on the control ring 24, the vanes of the panel adjacent the reader are opened the desired amount to supply the desired amount of light in the desired direction.

From the above description it will clearly appear that I have provided a new and improved lamp shade of simple, durable construction wherein the shade area is formed, at least partially, by panels provided with adjustable vanes or blades of "Venetian-blind" type and wherein the blades, shutters or vanes of all panels may be controlled concurrently or independently to provide ultimate directional flexibility.

It is, of course, to be understood that the above description is merely illustrative and in nowise limiting and that I desire to comprehend within my invention such modifications as are included within the scope of the following claims.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a lamp shade of the class described, a body including a plurality of panels each formed by a set of spaced angularly adjustable vanes, means operatively connecting the vanes in each set in substantial parallelism, biasing means yieldingly urging the vanes of each set toward one extreme position, a manually operable control member comprising a rotatable ring member, adjustable connections operatively connecting said control member with the vanes of each panel and providing therewith common control for the adjustment thereof, and detent means for releasably securing said rotatable ring control member in any one of a plurality of vane adjusting positions in opposition to said biasing means, the adjustable connection between said control member and each set of operatively connected vanes providing for individual adjustment of the vanes of each panel independent of adjustment of said control member, said control member being disposed adjacent the upper end of the body formed by said panels and substantially coaxial with the body formed by said panels.

2. In a lamp shade of the class described, a body including a plurality of panels each formed by a set of spaced angularly adjustable substantially flat shutters, means operatively connecting said shutters in each set in substantial parallelism, biasing means including a tension spring operatively connected with the shutters of each set yieldingly urging said shutters toward open position, a rotatable manually operable control member, an adjustable connection with each set of shutters operatively connecting said control

member therewith and providing common control for the adjustment thereof, and detent means for releasably securing said control member in any one of a plurality of vane adjusting positions in opposition to said biasing means, the adjustable connection between said control member and each set of operatively connected shutters providing for individual adjustment of the shutters of each panel independent of adjustment of said rotatable control member, said control member being disposed adjacent the upper end of the body formed by said panels and substantially coaxial with the body formed by said panels.

3. In a lamp shade of the class described, a frame forming a plurality of panel spaces, at least one of said panel spaces having a panel therein comprising a plurality of spaced angularly adjustable shutters journalled in said frame, means including a flexible member operatively connecting the shutters of said panel in substantial parallelism for adjustment in unison, means including a tension spring connected between one shutter and said frame yieldingly urging said shutters toward one extreme position, an arm operatively connected with one of said shutters and having a slidable shoe thereon, a control ring supporting said shoe, means including recesses in said ring and pin means associated with said shoe for securing said shoe to said ring in any one of a plurality of positions, means including a retainer fixed on said frame for supporting said control ring for rotary adjustment with respect thereto, and detent means operable for releasably retaining said ring in any one of a plurality of adjusted positions with respect to said frame.

4. In a lamp shade of the class described, a frame forming a plurality of panel spaces, some of said panel spaces having panels therein each comprising a plurality of spaced angularly adjustable shutters journalled in said frame, means operatively connecting the shutters of each panel in substantial parallelism for adjustment in unison, means including a tension spring connected between said frame and a shutter of each panel yieldingly urging said shutters toward open position, an arm operatively connected with one of said shutters in each panel and having a shoe thereon, a control ring supporting said shoe, means including recesses in said ring and pin means associated with said shoe for securing said shoe to said ring in any one of a plurality of positions, means including a retainer fixed on said frame for supporting said control ring for rotary adjustment with respect thereto, and detent means operable releasably to retain said ring in any one of a plurality of adjusted positions with respect to said frame.

5. In a lamp shade of the class described, a frame forming a plurality of panel spaces, said panel spaces having panels therein each comprising a set of spaced substantially flat angularly adjustable shutters journalled in said frame, means including a flexible member operatively connecting the shutters of each set in substantial parallelism for adjustment in unison, means including a tension spring connected between one end of said flexible member and said frame for yieldingly urging said shutters toward open position, an arm operatively connected with the other end of said flexible member and having a shoe thereon, a control ring supporting said shoe for sliding adjustment thereon, means including a releasable connection between said shoe and said control ring for securing said shoe to said ring in any one of a plurality of positions, means including a retainer fixed on said frame for supporting said control ring for rotary adjustment with respect thereto, and detent means operative for releasably retaining said ring in any one of a plurality of adjusted positions with respect to said frame.

6. In a lamp shade of the class described, a frame including a plurality of panel spaces, a panel in each panel space formed of a set of spaced angularly adjustable substantially flat vanes, means operatively connecting the vanes of each set in substantial parallelism, biasing means operatively connected with each set of vanes and yieldingly urging said vanes toward open position, and a manually operable control ring supported for rotation on said frame, an adjustable connection with the vanes of each panel and said control ring, said ring being movable in opposition to said biasing means to provide common control for the adjustment of the vanes of all panels, and detent means for releasably securing said control member in any one of a plurality of vane adjusting positions in opposition to said biasing means, the adjustable connection between said control member and each set of operatively connected vanes providing for variation in the adjustment of the vanes of each panel provided by said control ring, said control ring being disposed adjacent the upper ends of said panels and being coaxial with said frame and rotatable with respect thereto.

MAX KOHN.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
149,386	Fox	Apr. 7, 1874
1,509,744	Wilson	Sept. 23, 1924
1,536,623	Norvell	May 5, 1925
1,563,884	Weishan	Dec. 1, 1925
1,725,117	Walthers	Aug. 20, 1929
2,002,313	Doane	May 21, 1935