July 1, 1958 R. C. SMITH 2,841,697

LAMP WITH ADJUSTABLE LAMP SHADE SECTIONS

Filed March 29, 1957 2 Sheets-Sheet 1

FIG. 1.

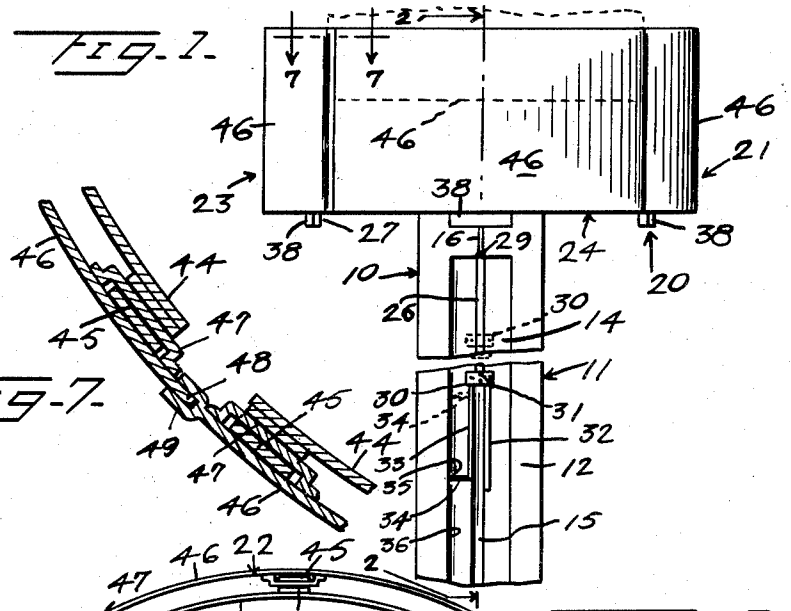
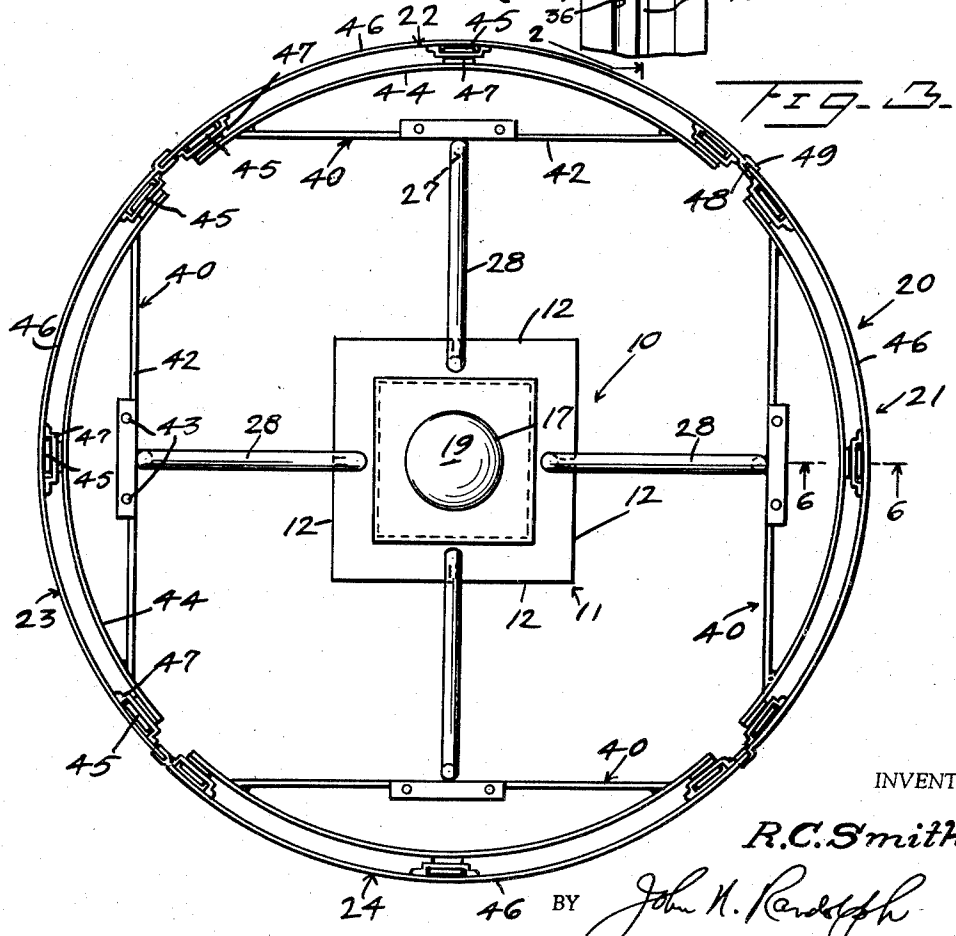


FIG. 7.

FIG. 3.



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Filed March 29, 1957 2 Sheets-Sheet 2

Fig. 2.

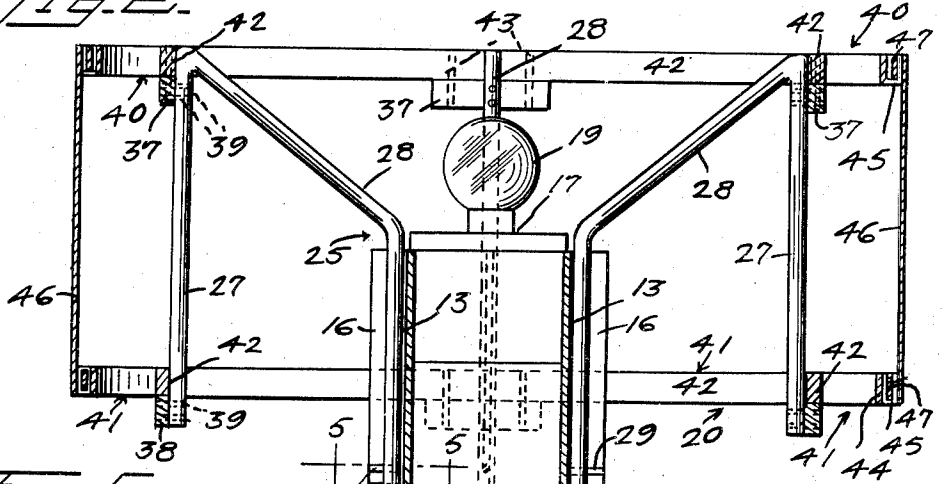


Fig. 6.

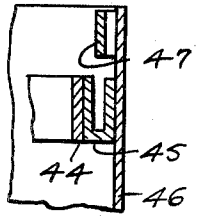


Fig. 4.

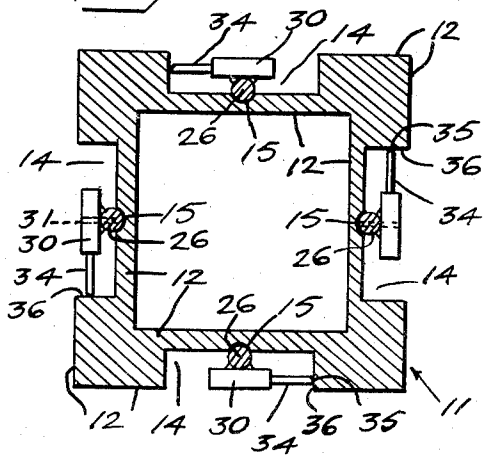
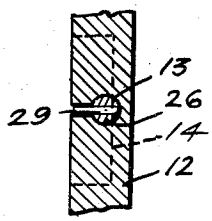


Fig. 5.



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LAMP WITH ADJUSTABLE LAMP SHADE SECTIONS

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Application March 29, 1957, Serial No. 649,398

8 Claims. (Cl. 240—108)

This invention relates to a novel construction of lamp and more particularly to a novel lamp shade and lamp shade support by means of which sections or sectors of the lamp shade surrounding the light source can be selectively moved to positions so that direct rays of light from the light source can be emitted in a desired direction without passing through the lamp shade, to thus provide a lamp which can be readily used for reading by emission of direct rays of light from the light source in a desired direction, or for providing a more subdued light, when not employed as a reading lamp.

Still a further object of the invention is to provide a novel means for selectively moving sectors or sections of the lamp shade to positions to control the light rays emitted from the lamp so that light rays emitted in certain directions will be subdued while light rays emitted in other directions will be direct and adequate for reading or other use where better lighting is required.

A further object of the invention is to provide a lamp of extremely simple construction in which sections of the lamp shade are individually supported for movement to a position to pemit an unobstructive passage of light rays in certain directions from the lamp or for shielding the light rays in the same direction.

Various other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawings, illustrating a presently preferred embodiment thereof, and wherein:

Figure 1 is a fragmentary side elevational view of a lamp constructed in accordance with the invention;

Figure 2 is an enlarged fragmentary vertical sectional view thereof, taken substantially along a plane as indicated by the line 2—2 of Figure 1;

Figure 3 is an enlarged top plan view of the lamp;

Figure 4 is an enlarged cross sectional view through the lamp base, taken substantially along a plane as indicated by the line 4—4 of Figure 2;

Figure 5 is an enlarged fragmentary horizontal sectional view, taken substantially along a plane as indicated by the line 5—5 of Figure 2;

Figure 6 is a fragmentary sectional view, taken substantially along a plane as indicated by the line 6—6 of Figure 3, on an enlarged scale and showing a part of one shade section disconnected from the supporting frame section thereof, and

Figure 7 is an enlarged fragmentary sectional view, taken substantially along a plane as indicated by the line 7—7 of Figure 1.

Referring more specifically to the drawings, the improved lamp in its entirety is designated generally 10 and includes a base 11 in the form of an upright standard which is shown as being substantially square in cross section and hollow to provide four corresponding sides 12, as best seen in Figure 4. Only the upper portion of the base or standard 11 has been illustrated, as said standard may be of any desired height to provide either a table lamp or a floor lamp and may be provided with any type enlargement at its lower end, not shown, to rest

on a floor or table. As the description proceeds, it will also become apparent that the standard 11 may be of other cross sectional shapes and may include a greater or lesser number of sides.

The upper portion of each side 12 of the lamp standard or base 11 is provided with a longitudinally extending bore 13 as best seen in Figure 5. The outer surface of each of the sides 12 is provided with a longitudinally extending outwardly opening recessed portion 14, the upper end of which terminates below and spaced from the upper end of the standard 11. Each recess portion 14 is provided in the bed thereof with a longitudinally extending groove 15, preferably of semicircular cross section. The lower end of the bore 13 of each side 12 opens into the recessed portion 14 thereof and the groove 15 constitutes a continuation of an inner half of the bore 13. The upper end of each bore 13 opens outwardly of the upper end of the standard 11, as best seen in Figure 2. The upper portion of each side 12 is provided with a longitudinal slot 16 which opens outwardly thereof and which communicates with the bore 13 and which is coextensive with said bore. A lamp socket 17 is mounted in the upper end of the hollow interior 18 of the standard 11 and projects from the upper end of said standard to support a lamp bulb 19 thereabove which constitutes the light source of the lamp 10.

The lamp 10 also includes an adjustable lamp shade, designated generally 20, comprising four sectors 21, 22, 23 and 24, in the embodiment of the invention as herein disclosed, although a greater or lesser number of lamp shade sectors may be utilized, as will hereinafter become apparent. As the lamp shade sectors are all identical, a description of one will suffice for all. Each lamp shade sector includes a supporting rod, designated generally 25. Each rod 25, as best seen in Figure 2, includes a substantially straight inner end portion 26, an outer end portion 27, which is disposed substantially parallel to the portion 26, and an intermediate portion 28 which extends obliquely from the upper end of the inner portion 26 and which connects the upper ends of the portions 26 and 27, so that said outer portion 27 is upwardly offset relative to the inner portion 26. The intermediate portion 28 thus forms an upwardly and outwardly inclined supporting arm. The rod portion 26, which is longer than the rod portion 27, is of a cross sectional size and shape to slidably engage one of the bores 13 of the lamp standard 11. Accordingly, the inner portions 26 of the four supporting rods 25 slidably engage the four bores 13. Likewise, the inner rod portions 26 slidably engage in the grooves 15. Each rod portion 26 has a pin 29 projecting radially outward therefrom which slidably engages in the slot 16 of the side 12 in which said rod portion 26 is mounted and which prevents turning movement of the rod portion relative to the standard 11 so that the outer portion 27 will be offset outwardly to a maximum extent from said side 12. A mounting block 30 is secured to the outer side of the lower end of each rod portion 26 by fastenings 31 and is disposed in the recess portion 14 of the standard side 12 in which the rod portion 26 thereof engages. A rigid bar 32 and a resilient bar 33 are secured to and extends downwardly from each mounting block 30. Said bars 32 and 33 are also disposed in the recess portion 14 and are positioned in spaced apart substantially parallel relation to one another. The resilient bar 33 has an outturned lower end 34 the beveled or pointed terminal 35 of which resiliently engages against a side wall 36 of the recessed portion 14 in which said resilient bar 33 is disposed and is spring biased thereagainst with sufficient force to bite into the wall 36 to latch the rod 25 against sliding movement longitudinally of the standard 11. Thus, the resilient bars 33 form spring latches for

latching the rods 25 and the lamp shade sectors of which said rods form parts in selected adjusted positions relative to the lamp standard 11.

Each lamp shade sector also includes an upper frame mounting bar 37 and a lower frame mounting bar 38. Said bars 37 and 38 are secured as by fastenings 39 to the outer side of the outer rod portion 27 adjacent the upper and lower ends thereof and provide supports for upper and lower frame sector halves 40 and 41, respectively. Said frame sector halves 40 and 41 each includes an inner wall 42 which is preferably substantially straight. Said inner walls 42 have intermediate portions resting on upper edges of the bars 37 and 38 and secured thereto by suitable fastenings 43. Each frame sector half 40 and 41 includes an arcuate outwardly bowed outer wall 44. A plurality of longitudinally spaced upwardly opening hooks 45 are suitably secured to the outer side of each outer wall 44, as best illustrated in Figure 6.

Each lamp shade sector also includes a panel 46 which may be formed of translucent or opaque material and is longitudinally bowed to conform to the curvature of the outer walls 44, as illustrated in Figure 3, but which could be of various other shapes. Each shade panel 46 is provided on its inner side with upper and lower sets of loops 47 which are suitably secured thereto and spaced relative to one another to correspond to the spacing of the hooks 45. By positioning the upper set of loops 47 above the upper set of hooks 45, as partially illustrated in Figure 6, the panel 46 can then be displaced downwardly for engaging each loop 47 with a hook 45 for thus detachably mounting the shade panel on a sector of the lamp shade frame. Each panel 46 has a plain end or side edge 48 and an opposite end or side edge 49 which defines a groove or channel that extends from the upper edge to the lower edge of the shade panel. The side edges or ends 48 of the panels 46 each slidably engage in a grooved end or side edge 49 of an adjacent panel, as best seen in Figures 3 and 7, for slidably connecting the four shade sectors.

With the four shade sectors in lowered positions as illustrated in Figure 1, the lamp 10 has a substantially conventional appearance. Where it is desired to provide more light in a particular direction, as for reading, the spring latch 33 and the rigid bar 32 of a particular lamp shade sector, as for example the sector 24 as seen in Figure 1, can be grasped between the thumb and forefinger by exerting a squeezing pressure. The spring latch 33 will thus be displaced toward the bar 32 to disengage the terminal 35 thereof from the wall 36 so that the rod 25 of said sector can then be displaced upwardly, with the rod portion 26 thereof sliding in the bore 13 and groove 15. When the shade sector has thus been raised to a desired extent, the gripping pressure on the parts 32 and 33 is released so that the spring latch 33 may spring back to its original position toward the wall 36 and so that its pointed end 35 will be imbedded in the wall 36 to support the lamp shade sector 24 in a raised position above the level of the other lamp shade sectors and so that light rays from the bulb 19 can then pass directly therefrom between adjacent ends of the lamp shade sectors 21 and 23 and beneath the raised lamp shade sector 24. It will also be apparent that two or more of the lamp shade sectors may thus be raised to provide a larger area through which direct rays will be emitted from the lamp or to provide two oppositely disposed areas, such as by raising the lamp sectors 24 and 22, so that direct rays will be emitted in opposite directions. Additionally, all four lamp shade sectors may be raised to a desired extent so that a greater amount of direct light will be emitted outwardly from the light source 19. It will also be apparent that when one lamp shade sector is raised or lowered relative to the others, that the ends or side edges 48 and 49 thereof will slide relative to the side edges 49 and 48 of the two adjacent lamp shade sectors.

It will also be apparent that the lamp 10 could be constructed with a greater or lesser number of lamp shade sectors and with a corresponding increase or decrease in the number of sides 12 of the lamp standard 11. The individual lamp shade sectors may be made of various shapes and various other modifications and changes are contemplated and may be resorted to, without departing from the function or scope of the invention as hereinafter defined by the appended claims.

I claim as my invention:

1. An adjustable lamp of the character described comprising a lamp standard and a lamp shade, said lamp shade comprising a plurality of lamp shade sectors each including a frame sector and a panel sector supported by and disposed around the frame sector thereof, each lamp shade sector including a supporting rod connected to and supporting the frame sector thereof, said lamp standard having guide means slidably receiving complementary portions of the supporting rods for slidably supporting the lamp shade sectors relative to the lamp standard, and latch means carried by said rod portions and releasably engaging portions of the lamp standard for adjustably supporting said rod portions individually relative to the lamp standard for adjustably supporting the lamp shade sectors relative to the lamp standard and to one another.

2. An adjustable lamp as in claim 1, said lamp shade panels having slidably interfitting side edge portions.

3. An adjustable lamp as in claim 1, and means for detachably mounting said panel sectors on said frame sectors.

4. An adjustable lamp as in claim 1, said supporting rods each including an outer portion secured to the frame sectors and an inner portion slidably engaging the guide means thereof, said inner rod portions and guide means having coacting parts to prevent turning of the rods relative to the lamp standard.

5. An adjustable lamp as in claim 4, each of said supporting rods including an intermediate portion extending between the upper ends of said inner and outer rod portions and disposed at an incline upwardly and outwardly from the inner rod portion.

6. An adjustable lamp as in claim 1, said lamp standard including a plurality of sides, each of said lamp standard sides being provided with guide means for slidably receiving one of said complementary supporting rod portions, said lamp standard sides each having an outwardly opening recess disposed beneath the guide means thereof in which the latch means of said supporting rod is contained.

7. An adjustable lamp as in claim 6, each of said latch means including a resilient latch element having an outturned free end spring biased into engagement with a wall surface of said lamp standard side.

8. An adjustable lamp comprising a lamp standard, a lamp shade, said lamp shade comprising a plurality of lamp shade sectors each including an outer part spaced from the lamp standard and an inner part, means slidably connecting said inner parts to the lamp standard for supporting said outer parts spaced from the lamp standard for individual sliding movement of the lamp shade sectors relative to the lamp standard, and latch means carried by each inner lamp shade sector part and detachably engaging the standard for releasably latching said lamp shade sector to the lamp standard in different elevated positions of the lamp shade sector relative to the standard.

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