June 7, 1955 T. J. TARGOSH 2,710,339

LAMP SHADE

Filed May 8, 1951 2 Sheets-Sheet 1

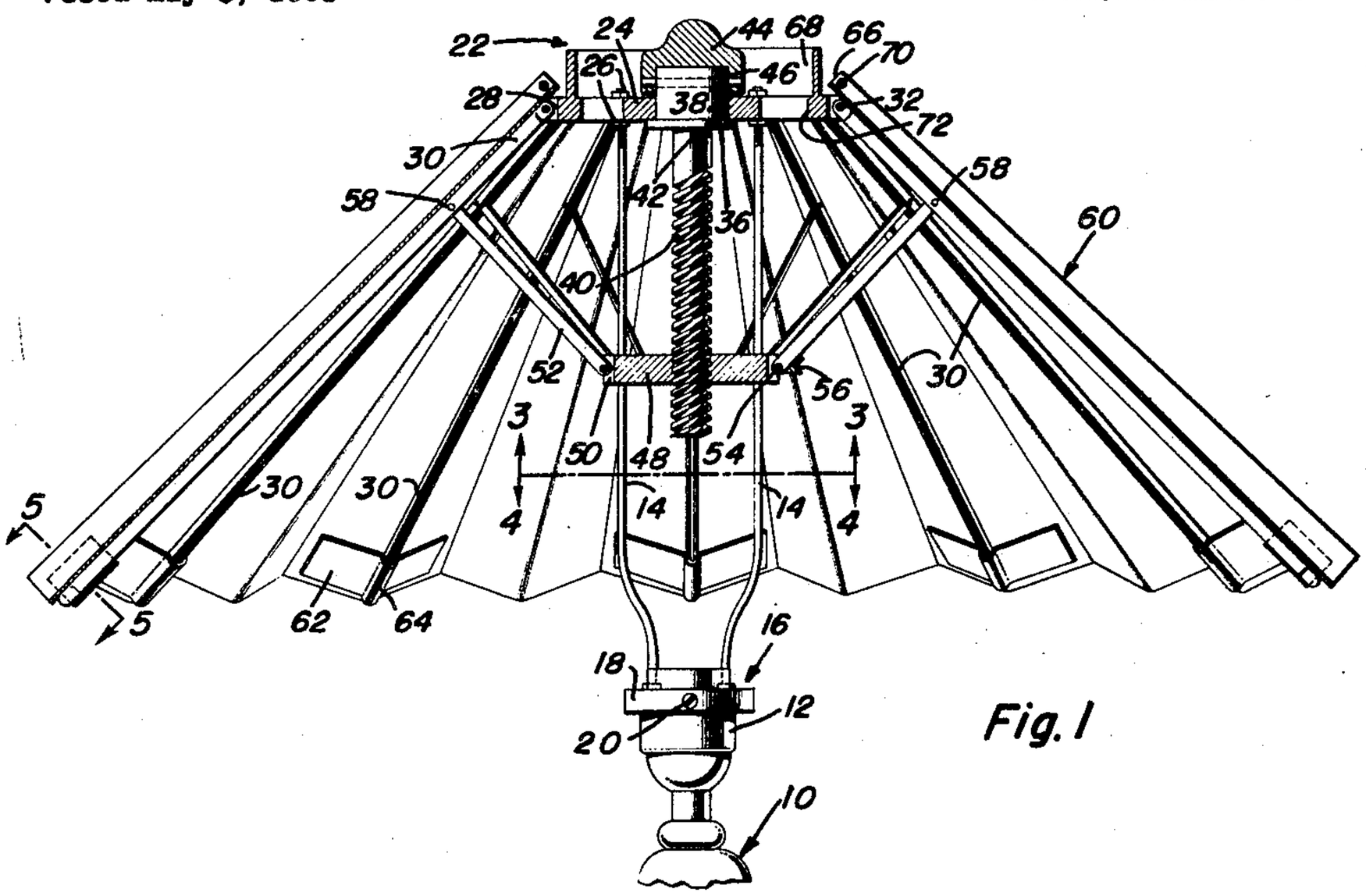


Fig. 1

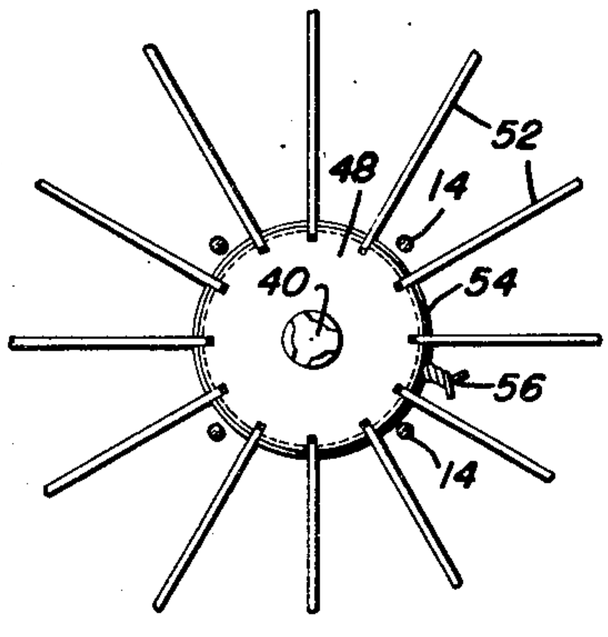
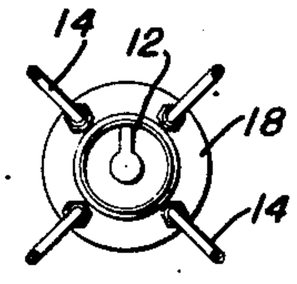


Fig. 3

Fig. 4



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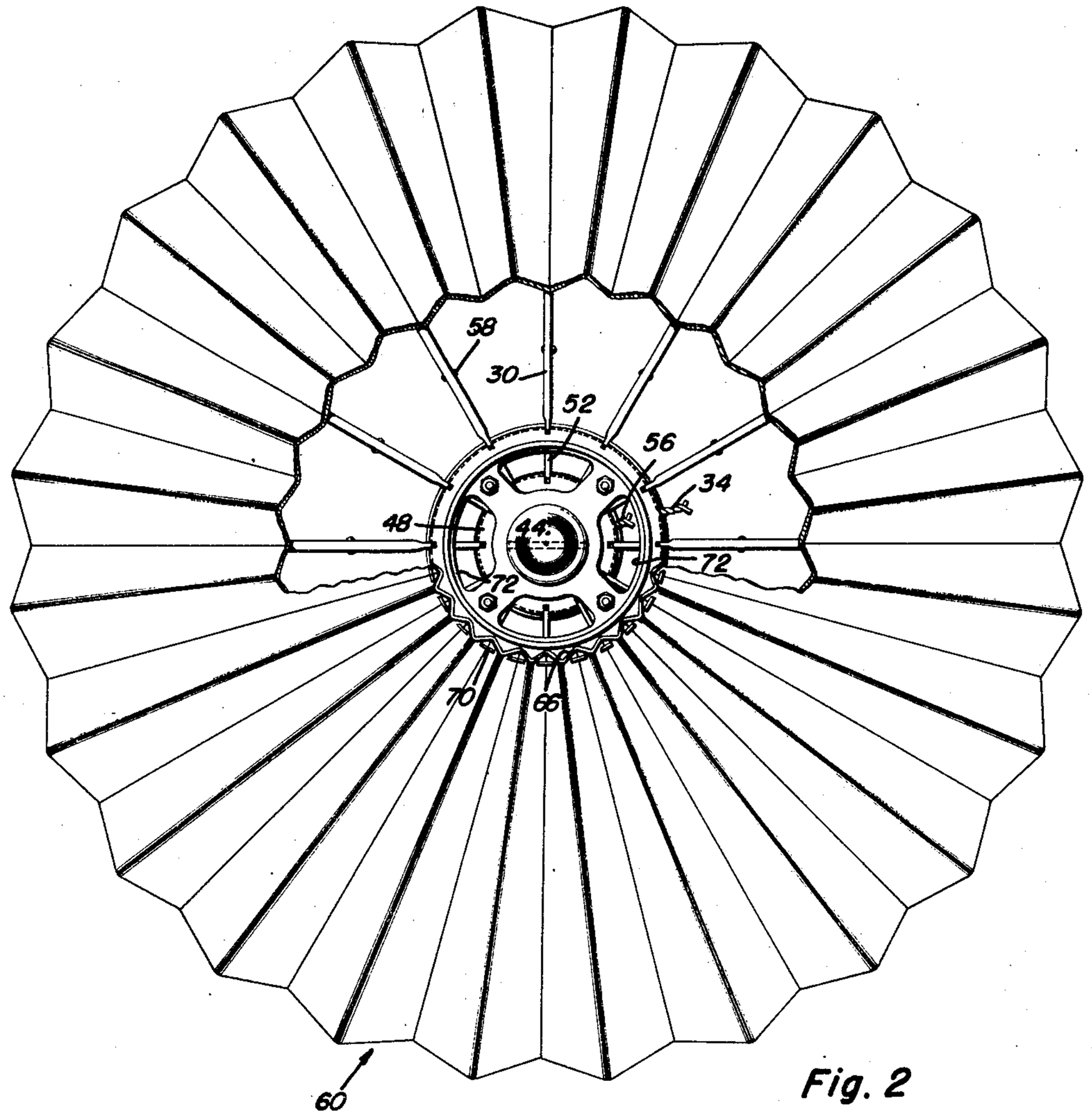

Fig. 2

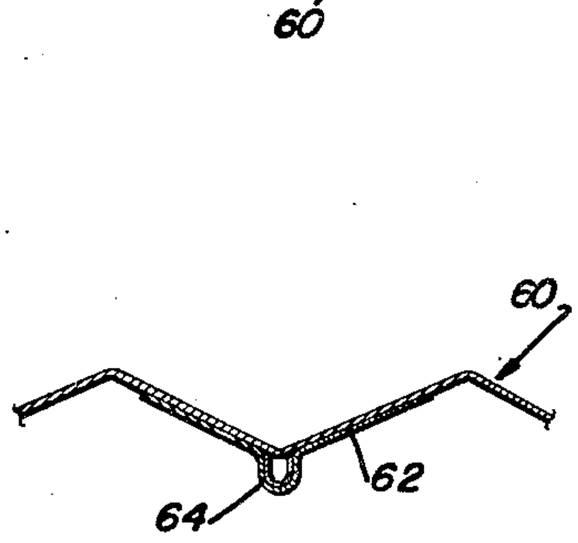

Fig. 5

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LAMP SHADE

Ted J. Targosh, Detroit, Mich.

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2 Claims. (Cl. 240—108)

The present invention relates to structural refinements in lamp shades, and more particularly pertains to a novel construction that affords adjustment in the shade position.

The primary object of the present invention is to afford control over the lighting effect produced by a lamp, and to accomplish this purpose in such a manner that the attractive appearance of the lighting fixture will be preserved.

Another important object of the present invention is to provide an adjustable lamp shade capable of realizing the foregoing object which will be easily adjusted without necessitating the removal of the attachment from the lamp stand proper, and in which the shade may be removed readily from the adjusting mechanism so as to permit the shade to be cleaned or replaced with a minimum of inconvenience.

A meritorious feature of the present invention resides in the provision of means whereby the lamp attachment may be readily secured to many forms of conventional lamp stands without necessitating modification of the latter.

Another important feature of the present invention resides in the traveling nut and its simple mechanical connection to the shade supporting ribs, together with the actuating rod for the traveling nut that is so disposed that the rod may be adjusted from a position at the top of the attachment, the overall arrangement being such that the aforementioned structure is concealed from view by the shade itself.

The final important feature to be specifically enumerated herein resides in the provision of pocket forming loops on the shade which will receive the shade supporting ribs, together with the elastic means for securing the central portion of the shade to the adjusting means, whereby the shade may be readily removed from the ribs and the adjusting means.

These, together with various ancillary objects and features of the invention, which will later become apparent as the following description proceeds, are realized by the invention, one embodiment of which has been illustrated, by way of example only, in the accompanying drawings, wherein:

Figure 1 is a central vertical sectional view of the adjustable shade attachment, showing the same secured to a lamp stand that is only partially shown;

Figure 2 is a top plan view of the construction shown in Figure 1, portions of the same being broken away to illustrate hidden details of the construction thereof;

Figure 3 is an enlarged horizontal sectional detail view, this view being taken upon the plane of the section line 3—3 shown in Figure 1;

Figure 4 is another enlarged detail sectional view, this view being taken upon the plane of the section line 4—4 also shown in Figure 1; and

Figure 5 is an enlarged sectional detail view taken upon the plane of the section line 5—5 in Figure 1.

Reference is now made to the accompanying drawings, wherein like numerals designate similar parts throughout

the various views, and wherein the principles of this invention are shown applied in the preferred form. Indicated generally at **10** is the upper portion of the conventional lamp stand, which lamp stand carries the usual lamp socket **12** for threadably receiving the base of a conventional electric light bulb (not shown), as will be readily understood.

A support comprising a plurality of upstanding rods or members **14** is secured to the socket **12** by means of a suitable clamp **16**. The clamp **16** may simply comprise a conventional split or C-type clamp, or if desired, the same may consist of a ring **18** provided with a set screw **20** as shown. It will be evident that various forms of clamping means **16** may be utilized, the sole requirement of the same being that such means may be readily secured to a lamp stand or the socket carried thereby so as to furnish adequate support for the rods or members **14**.

A cap construction **22** is carried by the rods **14**, such cap construction **22** including a circular plate **24** that is provided with suitable apertures for receiving the threaded upper ends of the rods **14** therethrough, the cap construction **22** being supported in adjusted vertical relation on the rods **14** by means of lock nuts **26** on the rods **14** engaging the upper and lower surfaces of the plate **24**, as clearly shown in Figure 1.

The periphery of the circular plate **24** is provided with a plurality of circumferentially spaced recesses **28** in which are pivotally received the inner ends of a plurality of radially extending ribs **30**. The ribs **30** are pivotally secured to the plate **24** by means of a wire **32** that extends around the entire periphery of the circular plate **24**, and which is seated in an annular groove in the periphery of the circular plate **24** so as to pass through suitable apertures in the inner ends of the ribs **30**. It will be noted in Figure 2 that the free ends of the wire **32** are twisted together as at **34**, and that the arrangement is such that the ribs **30** are confined to vertical swinging movement.

The circular plate **24** is provided with a central opening **36** in which is journaled the enlarged upper end **38** of a threaded rod **40**. The rod **40** is restrained against upward movement by means of an annular flange **42** that bears against the undersurface of the plate **24**, while the rod **40** is restrained against downward movement by means of a knob **44** secured to the upper end of the rod **40** by means of a transverse pin **46**. It will be appreciated that the arrangement is such that the rod **40** may be rotatably turned by the use of the knob **44**.

A traveling nut **48** is threaded on the rod **40**, and such traveling nut **48** is provided about its periphery with a plurality of circumferentially spaced recesses **50** that are similar to the recesses **28** provided in the circular plate **24**, such recesses **50** being for the purpose of pivotally receiving the inner ends of a plurality of radially extending arms **52**. A wire **54** extends about the circumference of the nut **48**, and is seated in a suitable annular groove therein so as to pass through suitable apertures adjacent the inner ends of the arms **52** so as to pivotally secure the latter to the nut **48** for vertical swinging movement. Like the wire **32** the wire **54** has its free ends twisted together as at **56** to afford a convenient means for securing or detaching the arms **52** from the nut **48**, as will be evident. The ribs **30**, like conventional umbrella ribs, are of inverted U-shaped cross section, as clearly shown in the drawings, and pivotally receive therein the outer ends of the arms **52**, such arms **52** being pivotally secured to the ribs **30** by means of pivot pins **58**. It will be appreciated that by virtue of the pivotal connections of the ribs **30** and the arms **52**, that is, such elements being restricted to vertical swinging movement, the traveling nut **48** is denied rotation about its central

vertical axis, so that when the rod 40 is turned by manipulation of the knob 44, the traveling nut 48 will rise or descend depending upon the direction of rotation of the rod 40 whereby the ribs 30 will be simultaneously expanded or retracted in a manner analogous to the operation of an umbrella.

Of course, additional means may be provided if desired to resist rotational movement of the traveling nut 48. Although such provision has been unnecessary, it will be appreciated that this may be readily accomplished merely by enlarging the traveling nut radially and providing guide apertuers therethrough for receiving the rods 14 therethrough.

A collapsible frusto-conical shade 60 is provided, which preferably is in the form of a sheet of material such as plastic or paper that is provided with alternate radial folds to produce an accordion-like appearance so that the same may be readily expanded or contracted. However, it is to be clearly understood that the shade 60 may be of fabric or any other material having flexible characteristics. In the preferred form of the invention, the shade 60 is provided with a plurality of securing strips 62 (see Figures 1 and 5), such securing strips 62 being secured to the underface of the shade 60 and provided with a loop 64 which defines a pocket for receiving a rib 30 adjacent the outer end of the latter. It will thus be seen that when the outer ends of the ribs 30 are passed through the loops 64, the outer periphery of the shade 60 is constrained to movement with the outer ends of the ribs 30 during adjustment of the latter.

As in conventional shades, the shade 60 is provided with a central opening 66 which receives therethrough an upstanding annular flange 68 carried by the circular plate 24. As best shown in Figure 2, an elastic band 70 is laced through suitable apertures in the shade 60 around the opening 66, so that the tension of the elastic band 70 tends to draw the shade 60 in such a manner as to reduce the size of the opening 66. It will thus be seen that the portions of the shade 60 adjacent the opening 66 are drawn tight about the ribs 30 and urged toward the flange 68 on the circular plate 24. It will also be appreciated that when it is desired to remove the shade 60 from the ribs 30, the latter may be adjusted into a retracted position adjacent the rod 40, and the elastic band 70 expanded so that the shade 60 may be shifted downwardly to free the ribs 30 from the loops 64, after which the shade 60 may be simply raised upwardly from the rest of the structure.

In order to avoid undue accumulation of heat under the shade 60 during the operation of the electric bulb, the circular plate 24 is provided with a plurality of openings 72 therethrough, which openings 72 permit ventilation of the space below the shade 60 by the convection currents of air that would pass upwardly through the openings 72.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. A lighting fixture and an adjustable shade therefor comprising a lamp and a lamp stand therefor, a support comprising a plurality of circumferentially spaced, vertically rising brace rods forming a cage carried by the lamp stand and projecting above the lamp, a cap construction supported by the support above the lamp, a plurality of radially extending ribs pivotally secured at their inner ends to the cap construction for vertical swinging movement, a vertically extending adjustment rod rotatably journaled through the cap construction and secured against axial movement relative thereto, said rod depending from the cap construction axially between said brace rods and being externally threaded, a traveling nut threaded on the rod and being confined against lateral movement within the cage formed by said brace rods, a plurality of radially extending arms having their inner ends pivotally connected to the nut for vertical swinging movement and also having their outer ends pivotally secured to said ribs, and a collapsible shade carried by the ribs, said shade being adjusted by means of a portion of the adjustment rod extending through the cap construction.

2. A lighting fixture and an adjustable shade therefor comprising a lamp and a lamp stand therefor, a support comprising a plurality of circumferentially spaced, vertically rising brace rods forming a cage carried by the lamp stand and projecting above the lamp, a cap construction supported by the support above the lamp, a plurality of radially extending ribs pivotally secured at their inner ends to the cap construction for vertical swinging movement, a vertically extending adjustment rod rotatably journaled through the cap construction and secured against axial movement relative thereto, said rod depending from the cap construction axially between said brace rods and being externally threaded, a traveling nut threaded on the rod and being confined against lateral movement within the cage formed by said brace rods, a plurality of radially extending arms having their inner ends pivotally connected to the nut for vertical swinging movement and also having their outer ends pivotally secured to said ribs, a collapsible shade resting on and surrounding the ribs, resilient means normally retaining the shade collapsed against the ribs adjacent their inner ends, said shade including pockets receiving the ribs adjacent the outer ends of the latter, said shade being adjusted by means of a portion of the adjustment rod extending through the cap construction.

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