

[54] **THREADED BULB COVER DEVICE**

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Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 185,934, Oct. 4, 1971, Pat. No. 3,757,105.

[52] U.S. Cl. **240/10 R, 240/1 R, 240/10 L, 240/73 QD, 240/151**

[51] Int. Cl. **F21v 11/00**

[58] Field of Search **240/1 EL, 1 LP, 10 R, 10 F, 240/10 L, 10 T, 73 QD, 151, 1 R**

[56] **References Cited**

UNITED STATES PATENTS

3,727,043	4/1973	Wall	240/10 L
3,624,385	11/1971	Wall	240/10 T
3,721,815	3/1973	Wall	240/10 R
2,085,207	6/1937	Abramson	240/10 T
3,018,362	1/1962	Joyce	240/1 EL X
3,582,637	6/1971	Cecil, Jr.	240/1 LD
3,727,044	4/1973	Monroy	240/10 L

3,092,695 6/1963 Abrams..... 240/73 QD X

FOREIGN PATENTS OR APPLICATIONS

414,886	9/1946	Italy	240/100
563,474	9/1958	Canada.....	240/10 F

Primary Examiner—Joseph F. Peters, Jr.

[57] **ABSTRACT**

A cover device is provided for being threadably mounted on a threaded bulb. The cover device has a portion which is internally threaded for positioning on the bulb. This internally threaded portion is formed on the cover device or connected thereto by rods or other means. The cover can be mounted for axial movement on the threaded bulb to provide different light effects. Flanges are mounted on a cover device to deflect the light and cylindrical projections are also used to provide means for the light to pass therethrough. The cover device is used on a bulb which projects in any direction; that is, for example, either upwardly or downwardly. Fiber optic filaments can extend from an internally threaded portion to provide light therethrough.

10 Claims, 8 Drawing Figures

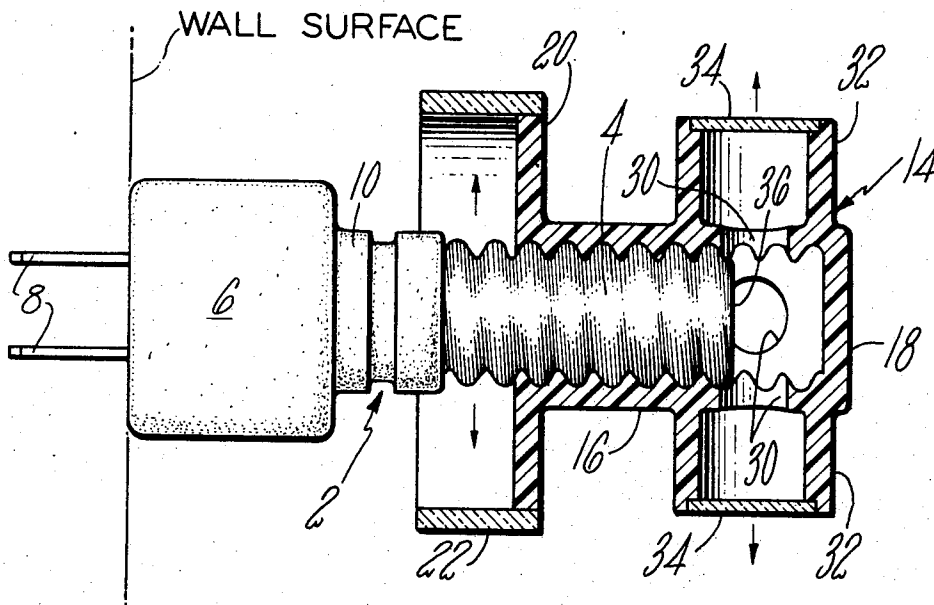


FIG. 1

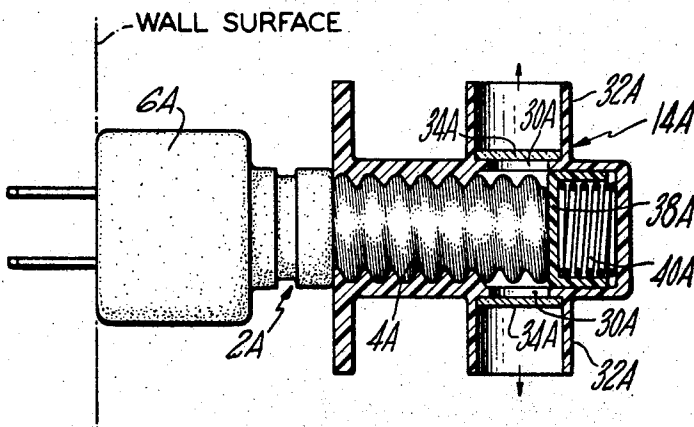
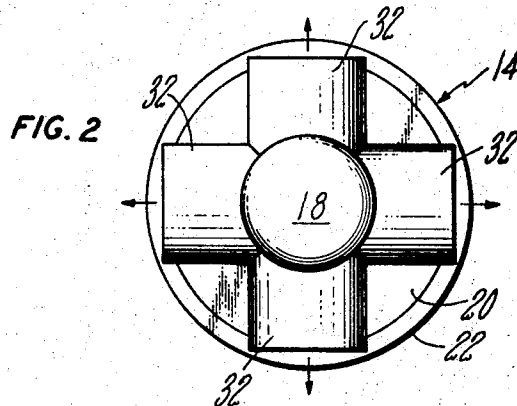
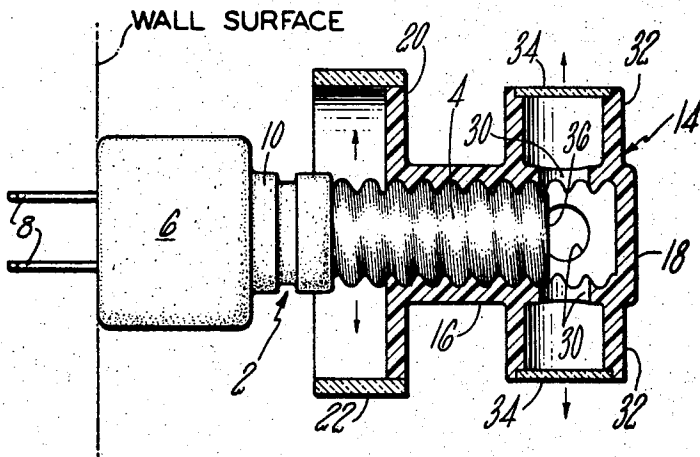


FIG. 3

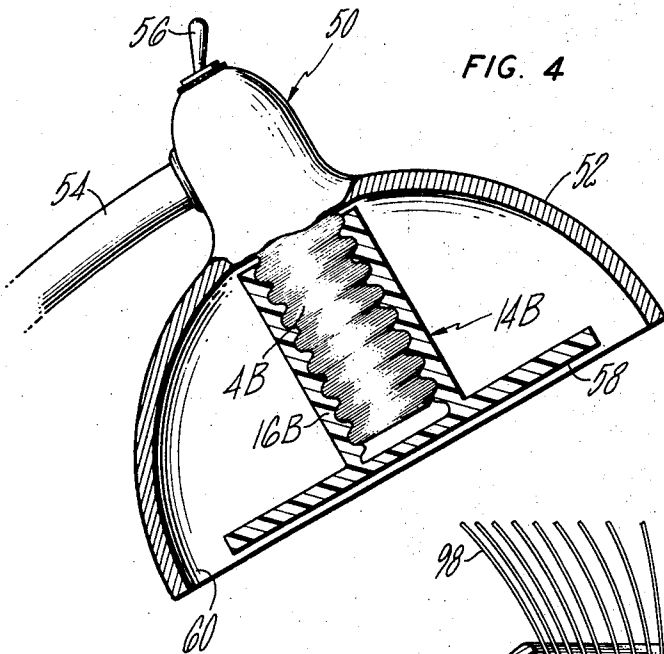


FIG. 4

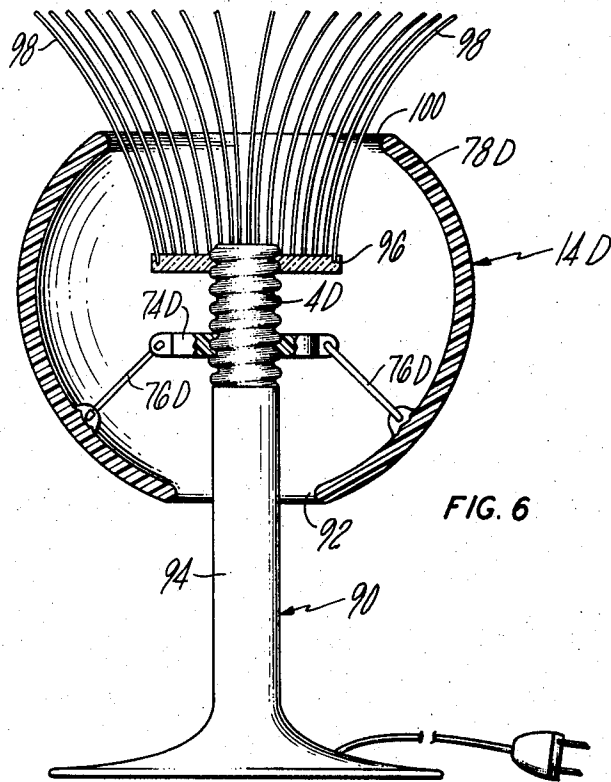


FIG. 6

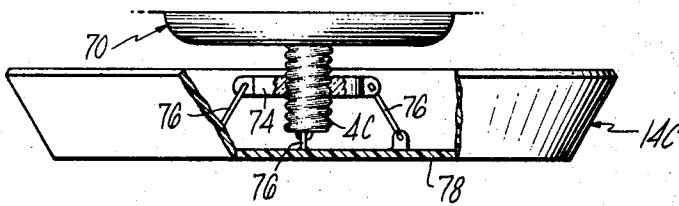


FIG. 5

FIG. 7

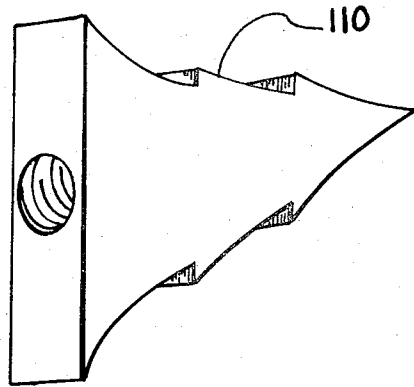
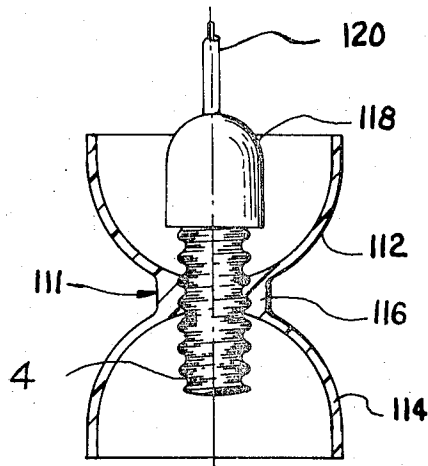


FIG. 8



THREADED BULB COVER DEVICE

RELATED APPLICATION

This application is a continuation-in-part of co-
pending Application Ser. No. 185,934, filed Oct. 4,
1971, entitled "Electric Light Device" now U.S. Pat.
No. 3,757,105.

BACKGROUND OF THE INVENTION

This invention relates to the field of electric bulb
cover devices and no cover was found similar to the
constructions shown herein. U. S. Pat. No. 3,721,815
shows an adapter for covering a bulb and is believed to
be representative of devices now used to cover bulbs
having a member contacting the bulb. The above men-
tioned patent is a continuation-in-part of U. S. Pat. No.
3,624,385. Other lamp attachments are shown in the
references cited in those patents.

SUMMARY OF THE INVENTION

An object of this invention is to provide a cover de-
vice for threadable mounting on a threaded bulb for
providing a desired lighting effect.

Another object of the invention is to provide a cover
device which can be threadably moved axially on a
threaded bulb and provide varying degrees of light and
different colors, if desired. This type of arrangement
can be used, for example, as a night light.

Another object of the invention is to provide a cover
device for a ceiling light which can be connected di-
rectly to the bulb and not require elaborate mounting
from a ceiling fixture.

Another object of this invention is to provide a cover
device for a threaded bulb which is located on the stem
of a lamp. Said cover device can be comprised of two
members threaded to the bulb if necessary to provide
a desired effect.

A further object of the invention is to have a flange
on a cover device which will cooperate with a reflecting
cover to control light therefrom. A cover device could
have a plurality of flanges which would aid in cooling.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side view of a light device having a
threaded bulb with the cover device in cross section;

FIG. 2 is an end view of a light device shown in FIG.
1;

FIG. 3 is a modification of a cover device for a
threaded bulb;

FIG. 4 is another modification of a cover device;

FIG. 5 is another modification of a cover device
shown on a threaded bulb extending downwardly from
a ceiling; and

FIG. 6 is another modification of a cover device
shown on a threaded bulb extending upwardly from a
lamp base;

FIG. 7 is another modification of a cover device; and

FIG. 8 is another modification of a cover device.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

FIG. 1 shows an electric light device 2 having a
threaded bulb or envelope 4 attached to a base assem-
bly 6 wherein the threads are engageable from the bulb

or envelope end. The base assembly 6 is of the type
having two prongs 8 mounted for insertion into an elec-
tric outlet of a home. The base assembly 6 includes a
projecting portion 10 which has an internally threaded
opening therein to receive the threaded base portion of
the threaded bulb 4. (A bulb of this type is shown and
described in parent U. S. Application Ser. No. 185,934,
filed Oct. 4, 1971.) The base assembly 6 includes
within, the wiring from each of the prongs 8 to each of
two metallic contacts within the internally threaded
opening in projecting portion 10, said contacts being
positioned so as to engage conventional metal contacts
on the base portion of bulb 4. Means can be provided
to prevent the threaded base portion from turning in
the projecting portion 10 if necessary.

While the externally threaded bulb 4 has been de-
scribed as removably attached to the base assembly 6
by a conventional threaded engagement, the externally
threaded bulb 4 can be fixedly mounted on the base as-
sembly 6 so as to form a unitary structure. This type of
construction is common among night lights where a
contoured bulb is fixedly formed to a base having
prongs thereon for insertion into an electrical source.

To control the amount of light put out by the exter-
nally threaded bulb 4, a cover means or device 14 is
placed thereon and adapted to be moved up and down
the length of the bulb to control the exposed surface of
the externally threaded portion of the bulb. The cover
means or device 14 is formed of a central cylindrical
member 16 internally threaded along its length to mate
with the external threads on the bulb 4, one end being
open while the other end is closed at 18; the cylindrical
member 16 being of such a length as to include the full
length of the threaded bulb 4.

In FIG. 1, the cylindrical member 16 is shown thread-
ably engaging the bulb for approximately two-thirds the
length of the bulb. The open end of the cylindrical
member 16 has a flange 20 extending outwardly there-
from to provide a light deflector. It can be seen from
FIG. 1 that the light emanating from the bottom por-
tion of the threaded bulb will be deflected sidewardly
for a distance. This flange can be made of various sizes,
depending on the type of light control desired.

Four openings 30 are equally positioned around the
closed end of the cylindrical member 16 and cylindrical
projections 32 extend outwardly from the cylindrical
member 16 around each opening. While these cylindri-
cal projections 32 can be of various lengths, they are
shown as approximately one-half of the length of the
cylindrical member 16. Each colored lens 34 is fixedly
positioned at the free end of the cylindrical projections
32 in a recess. This can be done by any means desired
such as by gluing or bonding. These lens can be of dif-
ferent colors, depending on the use of the cover means
14.

It can be seen that movement of the cover means 14
up and down the length of the bulb 4 will control the
amount and color of the light emanating therefrom.
With the cover means 14 off we have the total surface
of the externally threaded bulb 4 open to the room.
With the cover means placed thereon for approxi-
mately one-half the length of the bulb, we have then
only one-half of the bulb exposed, with the deflector
deflecting light from that portion so it extends radially
from the bulb. Very little light will show through the
lens 34. Then, as the cover means 14 is placed com-

pletely over the externally threaded bulb 4, there will be no light emanating from below the flange 20 and we will have a subdued light coming from the four lens 34. These lens can be of any color desired to match room decoration or provide a desired effect.

If it is desired not to have any light emanate from the lens 34 until the cover means 14 has been threaded on the bulb 4 to a point where the bulb engages the holes 30, the top of the bulb 36 can be painted black or have an opaque flat disc fixed thereto.

For further control, an annular flange 22 can extend from the end of flange 20 to further deflect and diffuse light deflected by the flange 20. This flange can be transparent and of a desired color. The cylindrical member 16, flange 20 and cylindrical flanges 32, for a night light will be opaque or made from a material which will transmit very little light. The cylindrical projections 32 provide a spoke-like arrangement for manual turning of the cover means 14.

The modification shown in FIG. 3 is similar to that shown in FIG. 1 wherein a mechanical means is provided in the cover means 14A to prevent light from getting into the cylindrical projections 32A until the top of the bulb reaches the openings 30A. The mechanical means is a flat cover 38A located within the cover means 14A and a spring 40A located between the closed end of the cover means 14A and the cover 38A. The flat cover 38A can be threaded into its internal position or made slightly smaller than the threads on the interior of the cover means 14A. In FIG. 3 the cover 38A has a flange to receive the spring and this cover has to be positioned in the end of the cover means or device 14A by having the end formed of a separate piece. The end is fixed in place after the cover 38A and spring 40A have been put in place. In FIG. 3, each lens 34A are shown fixed at the bottom of the cylindrical projections 32A in the same manner as before.

FIG. 4 shows a simplified cover means 14B which is positioned on bulb 4B. The electric light device 50 in this instance is a type wherein a deep-cupped shade 52 is formed around the bulb socket of the device which is usually attached to the end of a metal tube 54 through which wiring extends to the device. This type of covering can usually be found on pole-type lamps. A toggle switch 56 is located at the end of the device where it is fixed to the tube 54. The cover means 14B is formed having a central cylindrical member 16B internally threaded to mate with the external threads on the bulb 4B, with one end being open while the other end is closed and has an outwardly extending flange 58. Flange 58 is sized to be smaller than the opening 60 at the end of the shade 52 so that when the cover means 14B is within the opening 60, an annular space is left between the edge of the flange 58 and the opening 60. It can be seen from FIG. 4 that as the cover means is moved down the length of the bulb, the exposed portion of the bulb next to the base of the bulb will be enlarged, providing a greater amount of light to pass around the cover means and through the annular space between the edge of the opening 60 and the edge of the flange 58. Here again the cover means 14B can be opaque or transparent and colored.

As shown in FIG. 5, a ceiling fixture 70 is provided with a threaded bulb 4C having a different cover means 14C. The cover means 14C comprises an internally threaded ring member 74 with a plurality of rods or links 76 connecting it to a large cover or deflector 78.

It can be seen that the cover or deflector 78 in FIG. 5 will deflect the light toward the ceiling and prevent direct rays from providing too bright a light in a room.

The cover means as shown in the above figures can also be used on a light fixture where the bulbs project upwardly. In this case, the covering means is merely threaded downwardly over the bulb, except for the modification in FIG. 5 where the ring 74 is threaded on the bulb and then the rods are hooked onto openings on the ring member 74 and openings on the deflector 78. The deflector can be raised or lowered by moving the ring member 74 on the threaded portion of the bulb 4. If more adjustability is desired, the rods 76 can be made adjustable in length. It can thus be seen that chains or wire can be used in place of the rods.

In the modification shown in FIG. 5, the rods 76 can be threaded at their lower ends and extend through openings in the deflector 78 with decorative nuts engaging the threaded rods to support the cover means or device 14C. These rods 76 would be pivotally mounted to the ring member 74.

FIG. 6 shows an installation on a lamp 90 having a threaded bulb 4D wherein an internally threaded ring 74D is placed on the bulb while rods 76D extend between openings around the ring 74D and openings fixed to the inner side of a rounded cover or deflector 78D. The rounded cover or deflector 78D has an opening 92 in the bottom for receiving the stem 94 of the lamp 90. This modification can also have the rods 76D threaded at their outer ends and extend through openings in the deflector 78D with nuts engaging the ends of the threaded rods to support the cover device 14D.

A decorative addition to the lamp is the use of a second internally threaded ring 96 placed on the bulb 4D composed of a clear transparent plastic or glass or other light-conducting rigid material. Fiber optic filaments 98 are connected to said ring 96 by having one end fixed in a hole in the ring. The filaments then extend out of a hole 100 in the top of the rounded cover or deflector 78D. Holes could be formed in the side of the rounded cover or deflector 78D and small groups of filaments 98 could extend from the end of the ring 96 through each of said holes. These fibers can be made clear or of many different colors. If there is no room for a second ring, or if one is not desired, the first support ring can be made of the light-conducting rigid material and the fibers can be connected to the first support ring as shown and described on the second ring.

FIG. 7 shows a solid-shaped decoration 110 which can be formed of a plastic, such as lucite, into which the threads of the bulb 4 can be screwed.

FIG. 8 shows a cover 111 having an upwardly extending portion 112 and a downwardly extending portion 114. A portion 116 intermediate the ends is formed having an internally threaded section so as to be threaded onto the threaded bulb 4. The threaded bulb is connected to a socket 118 which is hanging down on a cord 120. The cover 111 can be positioned anywhere on the bulb 4 and each of the portions 112 and 114 can be separate colors, or one portion can be clear, while one portion is colored. A movement of the cover 111 along the bulb would vary the proportion of light extending through the portions 112 and 114. The cover can be repositioned to obtain any desired effect of a combination of colors.

I claim:

- 1. A cover device for an electric light bulb having an envelop with external threads along said envelope, said device comprising a body with an opening having internal threads for receiving said threaded envelop of said bulb, said body having an outwardly extending flange adjacent an end of said internally threaded opening, said body being adapted to be axially moved along said bulb, thereby exposing a different area of said envelope.
- 2. A cover device as set forth in claim 1 wherein said flange is colored to provide a colored light.
- 3. A cover device as set forth in claim 1 wherein said body has a second outwardly extending flange.
- 4. A cover device as set forth in claim 1 wherein said body has a second opening which intersects said opening having internal threads.
- 5. A cover device as set forth in claim 4 wherein a

- colored lens is located in said second opening.
- 6. A cover device as set forth in claim 4 wherein a hollow tube extends outwardly from said body around said second opening for directing light therefrom.
- 7. A cover device as set forth in claim 4 wherein the opening having internal threads has a threaded bulb located therein, means for preventing light from emanating from the end of said bulb in said opening.
- 8. A cover device as set forth in claim 1 wherein said body has a plurality of second openings which intersect said opening having internal threads.
- 9. A cover device as set forth in claim 8 wherein a hollow tube extends outwardly from said body around each second opening for directing light therefrom.
- 10. A cover device as set forth in claim 1 wherein means are provided for turning said body and moving it axially along a bulb.

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