United States Patent [19]

Small

[11] **3,719,220**

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[54] **CLOSABLE SHADE COWL PROVIDED CURTAIN HANGER BRACKETS**

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[52] **U.S. Cl.** **160/108,** 160/23, 160/324

[51] **Int. Cl.** **E06b 9/08,** A47h 1/13

[58] **Field of Search**.....160/23, 23 C, 28, 19, 108, 160/323, 324; 248/266–272

[56] **References Cited**

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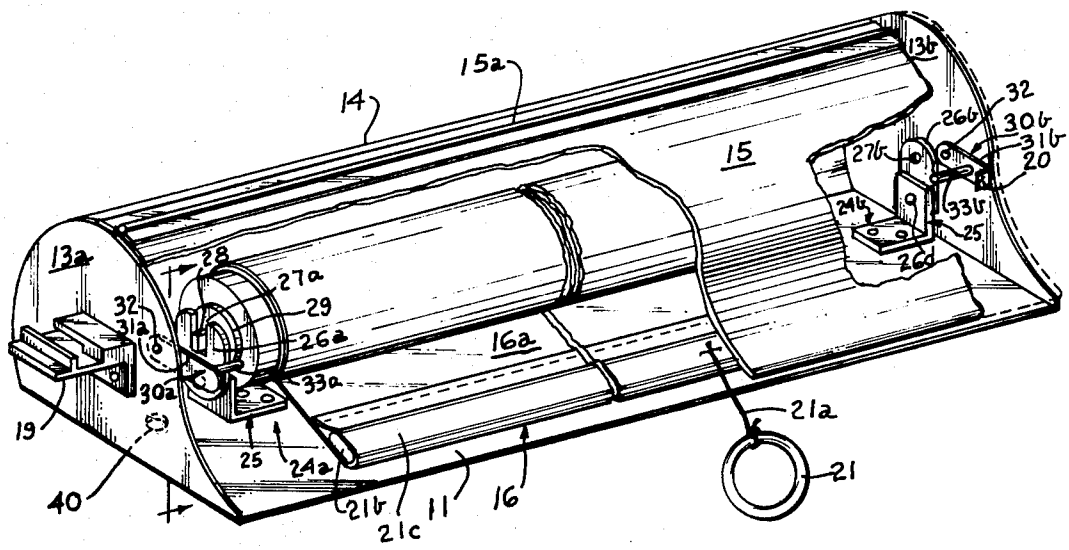
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Assistant Examiner—Philip C. Kannan
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[57] **ABSTRACT**

The cowl, adapted to be affixed to a structure, as the top of a window frame, has a hinged cover, so that a conventional shade, rolled up, is concealed in the cowl, all but the pull string. The conventional shade mounting brackets are altered to provide pivot arms which receive the respective end lug and pin of conventional shade roller rod ends. Then, between cowl end closures and shade mounting bracket, pivotally mounted, releasable latches are provided normally to retain the shade latched within the cowl in operative position to be rolled downwardly or upwardly to be fully obscured within the cowl. Curtain hanger brackets are provided by the cowl outwardly of its end closures.

10 Claims, 5 Drawing Figures



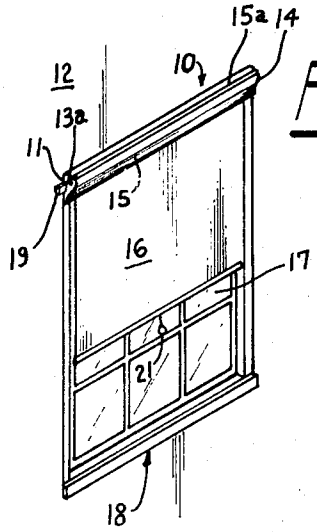


Fig. 1

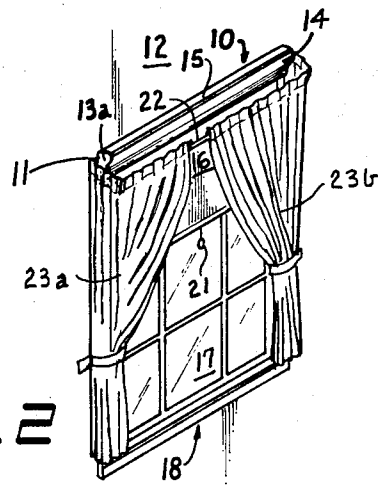


Fig. 2

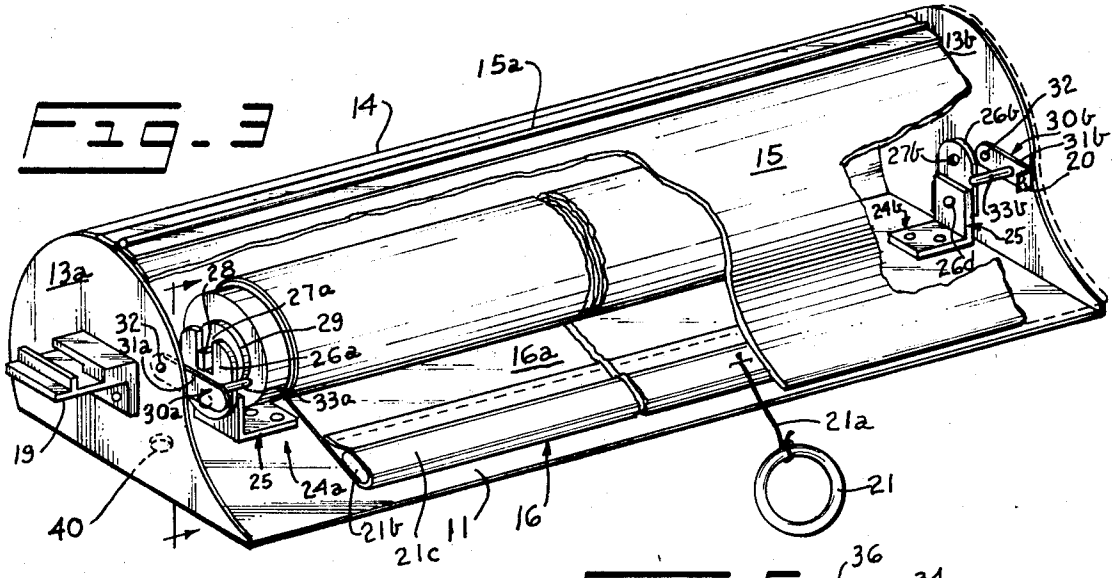


Fig. 3

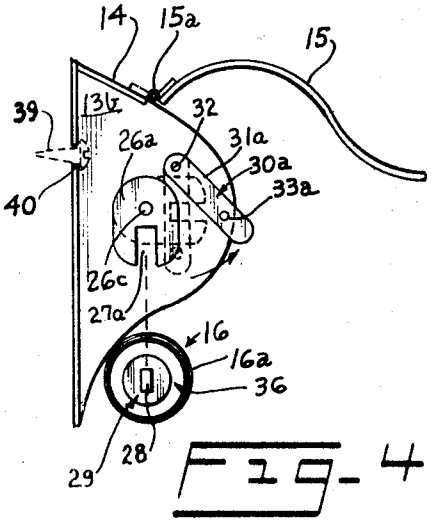


Fig. 4

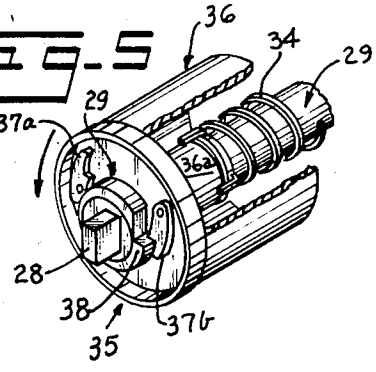


Fig. 5

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CLOSABLE SHADE COWL PROVIDED CURTAIN HANGER BRACKETS

BACKGROUND OF THE INVENTION

The invention is unique in that the prior art, as searched, shows no cowl with hinged closure, that completely obscures the conventional roller shade therewithin in releasably latched, operative position, while at the same time providing curtain hanger brackets. Thus, all that is necessary to mount shade for use with curtains ready to be hung thereabout, is to connect top member of a window frame. The nearest prior art reference appears to be Allen U.S. Pat. No. 711,455 that expired Oct. 21, 1919.

The cowl solves several problems, primarily, it prelocates the curtain hangers with respect to the shade mounting brackets. Also, it provides an ornamental cowl that receives the shade completely therein, except for the pull string ring, when the shade is completely rolled up, and at the same time permits the shade to be drawn downwardly, passing with slightly clearance between the back plate of the cowl and the inner surface of the hinge cover. Also, it provides means that assuredly maintains the shade latched in operable position, while the hinge cover can be raised to permit the latching means to be manipulated to permit the shade readily to be removed downwardly. The invention introduces a new structure of interior decoration classification, while serving the aforesaid several utilitarian functions that may be appreciated by design architects.

SUMMARY OF THE INVENTION

The invention relates to a window shade cowl with hinged closure, and closed ends providing curtain hanger brackets, the window shade being mounted to be releasably latched in occluded position within the cowl when the shade is completely rolled up.

As a primary object the invention sets out to provide a cowl designed to provide curtain hanger brackets on its ends, with shade mounting brackets within the cowl, which has a hinged cover completely to occlude the shade when rolled up, and to permit the shade to be rolled downwardly through slight clearance between cowl back plate and hinge cover.

It is also another and important object of this invention to provide a shade mounting cowl of this class with pre-located curtain brackets affixed thereto, whereby the means for conjointly mounting shade and curtains for predetermined can be affixed in proper place with relation to structure, as the upper member of a window frame, simply by affixing the cowl thereto, as at two prelocated points.

It is yet another object of the invention to provide shade mounting brackets within cowl, adapted to have releasably latching means manipulated together with shade supporting means on brackets pivoted, whereby the shade can be readily removed.

It is also a further object of the invention to provide a cowl of the class described which can have all component elements, as back plate, cowl plate, and cowl end closure all blanked from a single sheet of material, as aluminum, or specially appearing steel.

It is yet another object of the invention to provide a cowl of this class which can be readily adapted to provide special shade mounts, and special curtain brackets.

Other and further objects will be apparent when the invention is considered in relation to the drawings, in which:

FIG. 1 is an isometric view from inside, of the top, hinged cover, and an end of the cowl, to small scale, with shade pulled partly down over a window, no curtains being shown;

FIG. 2 is an isometric view, from inside, of a cowl as described shown in FIG. 1, and with curtains installed on a conventional curtain hanger, the conventional curtain hanger end engagement with the cowl provided curtain hanger brackets thus being occluded;

FIG. 3 is a large scale isometric view of a cowl of the class described, showing back plate, cowl plate, part of hinged cover, and end closures, with a shade mounted in the brackets therefor, the right end of the shade being omitted, better to show bracket construction and latching details, in corresponding fullness as shown for the left end bracket and latch construction;

FIG. 4 is a transverse sectional elevational view, partially diagrammatic, as if taken through the left end portion of the cowl shown in FIG. 3, just inwardly of the end closure, with angle bracket outline omitted, better to show latching details, however in this view the cowl side closure configuration appears, for purposes of illustration, as a variation of the corresponding configuration indicated for FIG. 3; and

FIG. 5 is a fragmentary isometric view, part in section, of the left end of a conventional shade roller and shade roller rod, thus illustrative of the well known window shade operation in being raised or pulled down.

Referring now in detail to the drawings in which corresponding reference numerals are applied to corresponding elements in the various views, a cowl **10** is shown in FIG. 1 as comprised of a back plate **11** outwardly, or against wall **12** and upper window frame member, not shown; and end closure **13***a*, a cowl member **14**, a hinged cover **15** connected to the cowl member **14** by a hinge **15**, and as shown closing the lower part of the cowl. The lower part of the shade **16** is shown drawn by pull ring **21** downwardly over the greater part of the upper of the window panes **17** of the window **18**. The left curtain rod hanger **19** of the opposed pair of curtain rod hangers carried by the respective cowl end closures **13***a*, **13***b*, is also indicated to small scale in FIG. 1. As shown in FIG. 2, a curtain rod **22** is installed on brackets, not shown, as the bracket **19** shown in FIG. 1, and curtains **23***a*, **23***b*, are shown, in conventional use.

Referring now to FIG. 3, the inner details of the cowl **10** may be seen, with special brackets **24***a*, **24***b*, left and right, including angles **25** shown affixed to the cowl outer or back plate **11**. Pivot arms **26***a*, **26***b*, are pivotally mounted on respective pivots **26***c*, **26***d*, on the upstanding legs of the respective bracket angles **25**, with the left pivot arm **26***a* having a slot **27***a* therein to receive the conventional lug **28** of the shade rod or inner member **29**. The opposite, or conventional pin end of the rod **29**, not shown for reasons of clarity, is received in a suitable hole or bore **27***b* in the right pivot arm **26***b*. A releasably latching means **30***a*, **30***b*, is shown in FIG. 3 for each pivot arm **26***a*, **26***b*, respectively, the latching means **30***a* on the left being shown as comprising a latching arm **31***a* pivotally connected about a pivot **32** which extends inwardly from the cowl

end closure 13*a* to provide the pivot mount for the upper end of aforesaid latching arm 31*a*.

A latch pin or rod 33*a* is shown extending inwardly from the free end of the latching arm 31*a* and substantially normal thereto and in latching contact with the lower surface of the pivot arm 26*a*, thus to dispose the slot 27 in the pivot arm 26*a* with axis in substantially horizontal position. Thus the lug 28 at the outer end of the shade rod 29 is shown in FIG. 3 as releasably, latchably retained against rotation in the slot 27. As this occurs the pin in the opposite end of the shade rod 29 fits in the hole or bore 27*b* in the pivot arm 26*b*, while this pivot arm 26*b*, right side, is shown in FIG. 3, as retained by a latch pin or rod 33*b*, corresponding in function with the latch pin 33*a*, left side, thus to hold the pivot arm 26*b* retained in releasably latched position. As shown in FIG. 3, the right latch pin 33*b* has an inwardly projecting grasp or handle part 20, which is easily urged upon for disengagement, as will be hereinbelow described. Correspondingly such a handle part 20 may be provided for the left latch pin 33*a*.

Referring now to FIG. 5, showing the left end of a conventional shade operating mechanism 35, a torsion spring 34 is shown having its inner end affixed to the shade rod 29 and its outer end affixed to an inwardly extending hub 36*a* of the shade roller 36 to which the conventional shade sheet 16*a* is affixed along a line extending longitudinally along, or parallel to the axis of rotation of the shade rod 29, as this shade rod 29 is held against rotation by the engagement of the lug 28 in the slot 27.

The conventional shade sheet 16*a*, FIG. 3, is shown as having its pull ring 21 connected by pull string 21a, to a lower cross stick 21*b* in a hem 21*c* provided to extend across the shade sheet 16*a*. Starting with the shade sheet 16*a* rolled up around the shade roller 36, as the shade sheet 16*a* is pulled downwardly, as by the manual exertion of a pull upon the pull ring 21, the shade sheet 16*a*, connected at its inner end along the shade roller 36, will cause the shade roller 36 to rotate in counterclockwise direction, FIG. 5. Thus the tension is tightened or increased in the torsion spring 34 as it winds up in more turns around the shade rod 29. If the downward pull on the shade sheet 16*a* is with any degree of force, such pull will cause the shade roller 36 to rotate with enough speed to urge the cam pins 37*a*, 37*b*, pivotally mounted on the outer face thereof, to pivot outwardly responding to centrifugal force, thus to permit the shade roller 36 to clear the latch cam 38 provided on the shade rod 29 just inwardly of the lug 28. Whenever the motion of the shade sheet 16*a* is substantially slowed, the cam pins 37*a*, 37*b*, will pivot toward the axis of rotation so that one of them engages the latch cam 38 to stop the rotation of the shade roller 36.

Conversely, when the shade sheet 16*a* is moved enough to effect cam pin 37*a* or 37*b* disengagement with latch cam 36, and then released, the torsion of the wound torsion spring 34 will take over and rotate the shade roller 36 in clockwise direction with speed that causes the cam pins 37*a*, 37*b*, to take disposition sufficiently outwardly by centrifugal force to permit clear rotation of the shade roller 36 about the shade rod 29, as long as the shade movement is not impeded to result in cam pin 37*a* or 37*b* engaging with latch cam 38. Thus the shade sheet 16*a* can be permitted to roll all the way up, or stop at any position therebelow, as desired.

This operation has been well known for years. It is set forth better to accentuate the object of the applicant in providing the pivot arms 26*a*, 26*b*, as pivotally mounted on the inwardly extending angle legs of the respective shade mounting brackets 24*a*, 24*b*, within the cowl 10.

As shown in FIG. 4, the hinged cover 15 has been raised and the respective left and right latching means 30*a*, 30*b*, have been urged upwardly from their latching positions shown in dotted lines, thus freeing the respective pivot arms 26*a*, 26*b*, to be pivoted downwardly about their respective pivots 26*c*, 26*d*, on the upstanding or extending legs of the respective shade mounting angles 25. This movement has disposed the slot 27*a* in the pivot arm 26*a* to be disposed in downwardly opening position so that the lug 28, together with the shade 16 at this end of the cowl 10 may drop downwardly, whereby the conventional pin, not shown, on the opposite end of the shade rod 29, may disengage from within the bore 27*b* in the pivot arm 26*b* by some slight leftward movement of the shade 16, and thus the shade 16 may be removed from its mounted position within the cowl 10.

Conversely, a shade 16 may be installed by first inserting the right end shade rod pin, not shown, into the bore 27*b* of the pivot arm 26*b*, and them moving the left end shade rod lug 28 up into the slot 27*a* in the left pivot arm 26*a*. Then the shade 16 may be urged upwardly to pivot the pivot arms 26*a*, 26*b*, into upper position as shown in FIG. 3, and the left and right latching means 30*a*, 30*b*, may be manipulated downwardly to releasably latch the shade 16 into operative position within the cowl 10. With the hinged cover 15 now closed, only any desired part of the shade sheet 16*a* may be visible at any desired time, and when the window panes 17 are not to be occluded, the complete shade 16 may be covered within the cowl 10, with the minimum exception of the pull ring 21 and a portion of the pull string 21*a* thereabove.

The invention symmetrically locates shade 16 with relation to curtains 23*a*, 23*b*, by the inclusion of the curtain rod hangers 19 on either side closure 13*a*, 13*b*. Thus both curtains and shade may be mounted symmetrically with relation to structure, as a window frame 18. In this regard, all an interior decorator or carpenter has to do is locate where two holes are to be made in the structural element in elevation, and in lateral relationship to the aforesaid structural element, and thus install screws 39, FIG. 4, through properly located holes therefor, as holes 40, FIG. 4 and FIG. 5, provided symmetrically within the cowl back plate 11.

The construction of the cowl 10, as shown in FIGS. 3 and 4, is such that the back pate 11, cowl member 14, and cowl side closures 13*a*, 13*b*, may all be blanked from a single sheet of metal, as aluminum or say, thin sheet or stainless steel. Also other metal may be used, as the demands of appearance and service may dictate.

The configuration of the cowl side closures 13*a*, 13*b*, exemplify differences in configuration between FIGS. 3 and 4, and various cowl side closure configurations can determine the volumetric shape of its interior. Notable the upper part of the cowl side closure inner surface is defined in FIG. 3 by convex curvature, while the upper part in FIG. 4 is defined by a straight, diagonal line

divergence from the top of the back plate, followed by a part of convex curvature. In each example the lower part convergence to the proximity of the back plate is defined by concave curvature. In either case the curvature of the central and lower parts of the cowl side closures determined the curvature of the hinged cover **15**. Compare the disclosure of the FIG. **3** hinge cover with the disclosure of the FIG. **4** hinge cover.

The form of curtain rod end brackets **19** is not described in detail, as curtain rod ends are of various construction, and suitable brackets **19** may be installed on the outer faces of the cowl side closures **13***a*, **13***b*, as practice may demand. Also shades **16** employed may be of various widths, thus to dictate the length of the cowl **10**. The structures shown are thus not by way of limitation, but by way of suggestions of manner in which the problems solved by this invention are accomplished.

Thus the invention is not limited by the structural illustrations of solutions that fall within the broad spirit thereof, wile the appended claims are by way of example, and not by way of limitation.

I claim:

1. The combination of a closable shade cowl providing curtain hanger brackets, said cowl comprising a back plate providing means through which said cowl may be connected to a structural member as upper window frame part, a cowl member extending inwardly and downwardly from said back plate, cowl side closures on opposite ends of said cowl and defined upwardly by said back plate and said cowl member with lower portions extending downwardly to terminate adjacent the lower portion of said back plate, opposed shade end mounting angle brackets with outer legs affixed to said back plate and inner legs having respective pivot arms pivotally mounted thereon and adapted to receive the respective pin and lug ends of a conventional shade rod therein, respective latch means pivotally mounted at upper ends within said respective cowl side closures, latch pins extending normally therefrom to releasably latch said pivot arms in shade operative position, thus with respective slot and hole in said respective arms receiving the respective conventional shade rod lug and pin therein, thus enabling said shade to be rolled upwardly and downwardly, a cowl cover hingedly connected to the lower portion of said cowl member and to fit at opposed ends in proximity to the respective inner edges of said cowl side closures and centrally slightly to clear the lower portion of said back plate to permit the shade pull string to pass therebetween as said shade is moved upwardly and downwardly, opposed curtain hanger brackets affixed to the outer surfaces of said respective cowl end closures; by manipulation, with said hinged cover raised, said latch pins being disposed upwardly with said pivot arms being swung downwardly, to dispose said slot facing downwardly for shade rod end lug and pin removal so said shade may be disengaged downwardly and out of said cowl.

2 A closable shade cowl providing curtain hanger brackets, as claimed in claim **1**, in which said side closures are concavely arcuate upwardly from the lower part of said cowl, and then convexedly arcuate thereabove, whereby said cowl member is convexedly arcuate.

3. A closable shade cowl providing curtain hanger brackets, as claimed in claim **1**, in which said side closures are concavely arcuate upwardly from the lower part of said cowl, centrally convexedly arcuate, and diagonally straight over upper part, whereby said cowl member is of flat plate construction.

4. A closable shade cowl providing curtain hanger brackets, as claimed in claim **1**, in which said side closures, said back plate and said cowl member may be blanked from a single sheet of metal.

5. A closable shade cowl providing curtain hanger brackets, as claimed in claim **1**, which additionally includes curtain hanger means extending inwardly from curtain hanger bracket on one cowl side, across, and outwardly to curtain hanger bracket on the other cowl side, with said curtain hanger suspending curtains on either side thereof.

6. A closable shade cowl providing curtain hanger brackets, as claimed in claim **1**, in which said means provided for attachment of said cowl to a structure, includes spaced apart holes in said back plate, with at least one of screws and nails being provided to be driven through said holes into said structure.

7. A closable shade cowl providing curtain hanger brackets, as claimed in claim **1**, in which said means provided for mounting said shade upon said back plate comprises in place of conventional shade end mounting brackets, angles pivotally mounting pivot arms, as aforesaid.

8. A closable shade cowl providing curtain hanger brackets, as claimed in claim **1**, in which said shade comprises a conventional roller shade.

9. A closable shade cowl providing curtain hanger brackets, as claimed in claim **1**, in which said shade comprises a special interior decorating shade.

10. A closable shade cowl providing curtain hanger brackets, as claimed in claim **1**, in which said pivot arms latching means includes handle means for manipulation into latching and unlatching position.

* * * * *