United States Patent [19]

Hyman

[11] **3,844,330**

[45] **Oct. 29, 1974**

[54] **WINDOW COVERING SYSTEM**

[75] Inventor: **David L. Hyman**, Santa Monica, Calif.

[73] Assignee: **LouverDrape, Incorporated**, Santa Monica, Calif.

[22] Filed: **Dec. 11, 1972**

[21] Appl. No.: **314,158**

[52] **U.S. Cl.** ..... **160/166 A**, 160/84 R, 160/168

[51] **Int. Cl.** **E06b 9/26**

[58] **Field of Search** ..... 160/166 A, 184, 84, 167, 160/168, 169, 174, 176, 173

[56] **References Cited**

UNITED STATES PATENTS

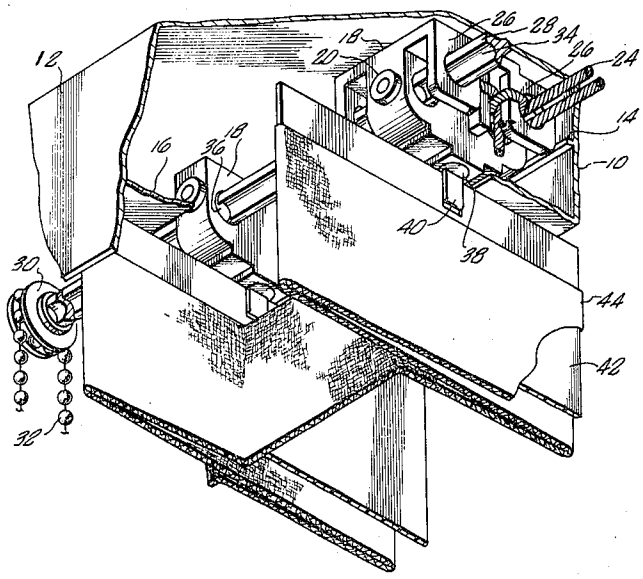
1,937,342	11/1933	Higbie	160/84 R UX
3,038,534	6/1962	Cayton	160/173

Primary Examiner—W. C. Reynolds
Assistant Examiner—Philip C. Kannan
Attorney, Agent, or Firm—Lyon and Lyon

[57] **ABSTRACT**

A window covering system is disclosed herein which provides an attractive drape-like appearance and further provides the brightness control of louvers. The system uses conventional vertical blind hardware employed with vertically disposed louvers which is capable of actuating such louvers to provide both a varying angular orientation of the louvers relative to the traverse rod and a means for retracting the louvers from in front of the window. Drape material is hung from the vertically disposed louvers. The drape material is attached to the louvers in such a way that a normal drape-like effect is obtained regardless of the angular orientation of the louvers. This drape-like effect may also be achieved without pinch pleating the drapery material.

5 Claims, 4 Drawing Figures



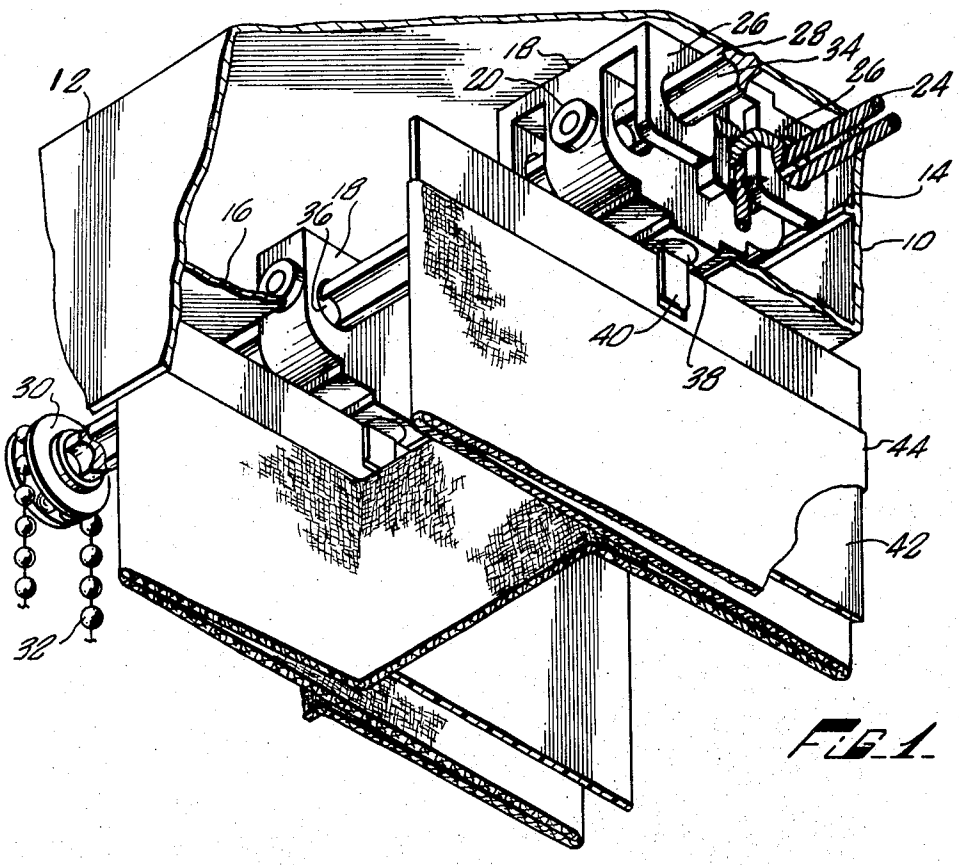


FIG. 1

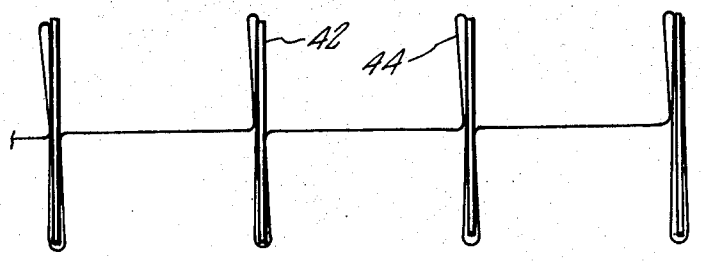


FIG. 2

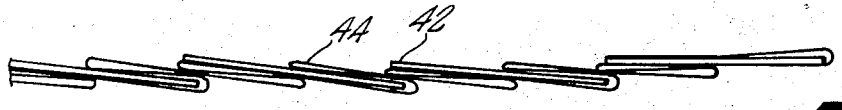


FIG. 3

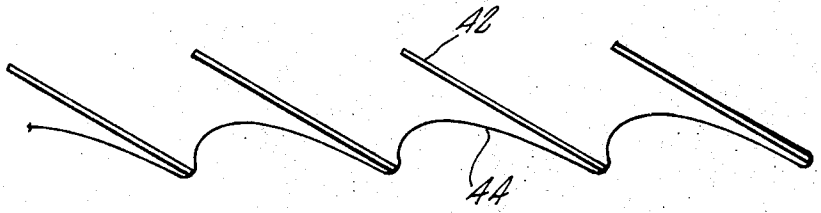


FIG. 4

WINDOW COVERING SYSTEM

BACKGROUND OF THE INVENTION

This invention relates to a window covering system. More specifically, this invention is directed to an improved means for providing a translucent drape-like covering which can selectively provide opaqueness.

Window covering systems have been traditionally separated into two groups. The first group includes drapes and curtains. The second group includes louvers such as the conventional Venetian blinds and vertically disposed louvers. Systems have also been developed for hanging the louver-like covering adjacent a drape-like covering. However, in these combined systems, the drapes are independent of the louvers and are required to be operated independently of the louvers. In these combined systems, it is necessary to make and hang the drapes in a conventional manner. Pinch pleats are necessary in such systems to achieve the drape-like effect. Further, because the translucent drapes are independent of the louvers, a specific effort must be made to achieve a uniform appearance of the drapes and louvers across any given window.

The present invention contemplates the operation of both the drapery system and the vertically disposed louver system as a single operative system providing a uniform and decorative covering which has the capability of varying the degree of opaqueness. Thus, a primary object of the present invention is to provide a single system which functions as both a drapery system and a vertically disposed louver system.

A further object of the present invention is to provide a novel construction of a window covering system which eliminates the need for pinch pleats. The effect of fullness derived from pinch pleating is given to the drape instead by attaching a significant portion of the upper edge of the drapery material to each of the louvers.

FIG. 1 is a perspective view illustrating a conventional vertical blind mechanism having louvers and draperies dependent therefrom.

FIG. 2 is a plan view of the layout of the present system showing louvers in the open position.

FIG. 3 is a plan view illustrating the system of FIG. 2 with the louvers in the closed position.

FIG. 4 is a plan view of an alternate louver and drape system.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Turning now to the drawings, FIG. 1 illustrates a vertical blind mechanism presently used for conventional vertically disposed louvers. The vertical blind mechanism is contained within a channel member **10** which operates to support the mechanism and cover the top portion of the window covering system. The channel member **10** may be conventionally fixed directly to the building structure or window frame. The channel member **10** has an extended portion **12** which covers the upper edge of the drape and louver assembly to give a pleasing facade to the system. Two horizontal members **14** and **16** extend inward from the walls of the channel **10.** These horizontal members **14** and **16** lie in a horizontal plane and extend a sufficient distance to support conventional vertically disposed louver trucks **18.**

The conventional vertically disposed louver trucks **18** have wheels **20** which ride on the horizontal members **14** and **16.** The horizontal members **14** and **16** are spaced to allow the trucks **18** to fit therein. The fit of the trucks **18** between the members **14** and **16** prevent angular rotation of the trucks **18** and keep the trucks **18** laterally aligned as well. A cord **24** is attached to the lead truck **18** which has extensions **26.** The cord **24** is rigged in a conventional manner for drawing the vertically disposed louver system laterally across the window.

Means are preferably employed for controlling the angular orientation of each segment of the depending window covering. This control means may be provided by any one of the conventional systems associated with vertically disposed louvers. One such system uses a control rod **28** which is pivotally mounted to the channel member **10.** The control rod **28** extends through each truck **18.** The control rod **28** may be rotated by means of a pulley **30** which is operated by chain **32.** Chain **32** extends to a convenient point for manual control at one end of the window covering system. Channels **34** are cut into the control rod **28** to give purchase to a gear **36** located within each truck **18.** The gears **36** are allowed to slide with their respective trucks **18** along the control rod **28.** The use of the channels **34** which cooperate with engaging means on the gears **36** allow positive engagement with a loose fit. Thus the control rod **28** can be made to reliably operate with the gears **36** without obstructing traverse travel of the trucks **18.** The gears **36** engage worms located in the interior of each truck **18.** Each worm is in turn attached to a pivot. As the control rod **28** is manipulated by the chain **32,** the pivots **38** located within each truck **18** will be caused to vertically rotate simultaneously with respect to the trucks **18** and the channel member **10.** Louver hooks **40** attach the pivots **38** to the louvers **42.** Because the hooks **40** securely clamp the louvers **42** across a substantial width, the louvers **42** are caused to remain aligned on the pivots **38.** Consequently, the louvers **42** may be controlled by the control rod **28** to remain mutually parallel with one another. In this way, a uniform degree of opaqueness is selectively obtained by manual manipulation of the chain **32** which determines the angular position of the vertically disposed louvers **42.**

The vertically disposed louvers **42** are conventionally hung from each louver hook **40** respectively. The louvers **42** preferably extend the full height of the window or opening to be covered and are of sufficient width to overlap when pivoted to a closed position when the system is extended across the window. The louvers **42** may be planer to achieve a minimum profile when perpendicularly disposed with respect to the window or may be slightly curved to provide increased bending and torsional rigidity.

To provide a drape-like appearance, flexible drape material **44** is hung from the upper portion of each louver **42.** Preferably the material **44** is of a translucent nature in order that the operation of the angular control device associated with the vertically disposed louver mechanism will have the effect of varying the degree of opaqueness of the overall covering system. The material **44** may be hung from the louvers **42** by any conventional means such as adhesives, rivets, snaps and drapery hooks. Because of the need to periodically launder the drapery material **44,** it is advantageous to provide

some means for attaching the drapery material 44 to the louvers 42 which will allow disassembly of the system. By attaching the drapery material 44 to the vertically disposed louvers 42, the system will retain a uniformity as it is drawn across the window. Further, the system is controlled through the use of only two mechanisms, the cord 24 and the cable 32. The cord 24 is used to control the traverse function while the chain 32 controls the angular disposition of the vertically disposed louvers 42 as mentioned above.

Various attachment configurations may be used to associate the vertically disposed louvers 42 and the drapery material 44. Attachment may be made at any desired point near the upper end of the louvers 42. It is esthetically pleasing to have the drapery material 44 extend upward to a point above the bottom edge of the extension 12 of channel member 10. Naturally, the drapery material 44 may be attached to the louvers along the full length of each louver 44. However, to achieve a full drapery-like effect, the drapery material 44 should be attached only at its upper edge. A simple configuration may be used for an inexpensive window covering system as shown in FIG. 4. The drapery material 44 is attached only at the front edge of each louver 42. Such a system lacks the full drapery-like effect, but provides a translucent drapery which combines the control of opaqueness available with the present system.

To achieve a decorative window covering system having the fullness normally associated with drapes, the drapery material 44 may be pinch pleated and attached at the front of each louver 42. This may be done by conventional drapery hooks which can attach to an eye located at the top front edge of each louver. When such a system is employed, it is not necessary that the channel member 10 extend down over the front edge of the drapery material 44. To more fully utilize the combined system concept associated with the present invention, the material 44 may be run back and forth about each louver 42. A great number of configurations are available; one such system is shown in FIGS. 1 through 3. The drapery material 44 is attached only at the top of each louver 42 and may have two louver widths or more of drapery material 44 gathered about each louver 42. In this manner, a fullness is achieved in the overall system which is similar to that achieved from a pinch pleated drapery without the need for pinch pleating. It is further advantageous to have a free length of drapery material 44 between each louver 42 which does not exceed the width of each louver 42 in order that the louvers, when rotated to a closed position, will overlap to exclude all light transmission through the system.

Thus, a decorative covering system is achieved which allows for varying degrees of opaqueness without giving the impression or operating requirements of a vertically disposed louver system positioned adjacent and behind a separate drapery system. Having fully described my invention, it is to be understood that I am not limited to the details herein set forth, but that my invention is of the full scope of the appended claims.

What is claimed is:

1. A decorative window covering system comprising:

a vertical blind mechanism,

vertically disposed louvers pivotally mounted to said vertical blind mechanism and dependent therefrom, said vertical blind mechanism providing selective angular orientation of said louvers with respect to said vertical blind mechanism, and

flexible covering material attached to each of said louvers, said flexible covering material being constrained to move with said louvers when said louvers are moved laterally on said vertical blind mechanism, said flexible covering material freely depending from near the upper ends of said vertically disposed louvers to create a drape-like covering, said flexible covering material including a free length thereof between louvers to create a drapery-like effect.

2. A decorative window covering system comprising:

a vertical blind mechanism,

vertically disposed louvers pivotally mounted to said vertical blind mechanism and dependent therefrom, said vertical blind mechanism providing a selective angular orientation of said louvers with respect to said vertical blind mechanism, and

flexible covering material attached to each of said louvers, said flexible covering material being constrained to move with said louvers when said louvers are moved laterally on said vertical blind mechanism, said flexible covering material hanging from near the upper ends of said vertically disposed louvers to create a drape-like covering, said flexible covering material including a free length thereof between louvers to create a drapery-like effect.

3. The decorative window covering system of claim 2, wherein

said flexible covering material is attached across at least one width of each of said louvers.

4. The decorative window covering system of claim 2, wherein

said flexible covering material is caused to overlap itself to provide a drapery-like appearance having varying degrees of translucency.

5. The decorative window covering system of claim 2 wherein said louvers are opaque and said flexible covering material is translucent.

* * * * *