Sept. 14, 1943. A. L. THEXTON 2,329,667

BLACKOUT WINDOW SHADE

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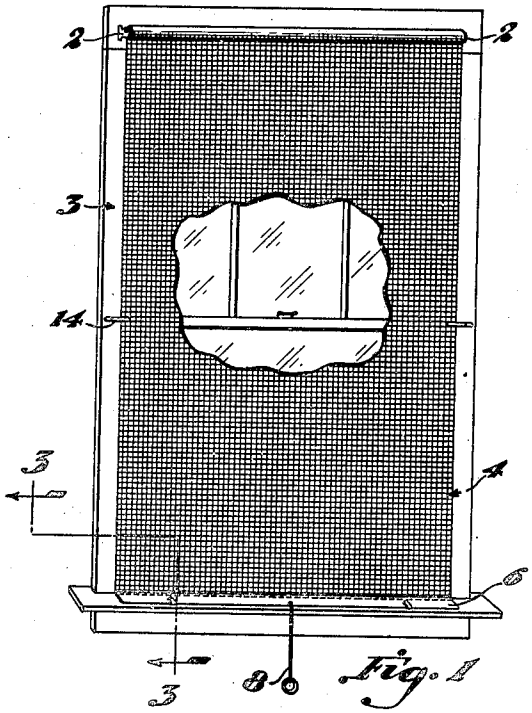


Fig. 1

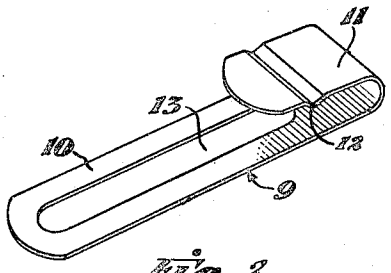


Fig. 2

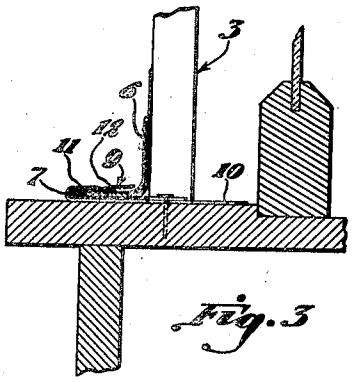


Fig. 3

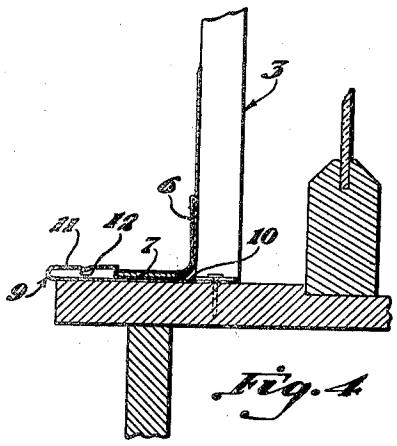


Fig. 4

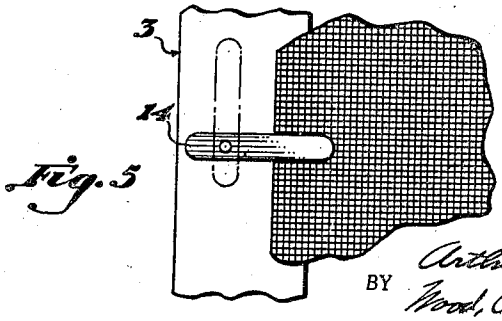


Fig. 5

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BLACK-OUT WINDOW SHADE

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5 Claims. (Cl. 160—290)

This invention relates to window shades and the installation of them upon windows. It is directed particularly to the so-called "blacking out" of windows, that is, hanging a shade over a window or frame thereof in such manner that light within the room is not visible from the outside. Precautions of this sort have become necessary in many localities during recent months inasmuch as the light escaping from a window may offer a target, or serve as a guide, to an airplane during night warfare.

The principal object of the invention has been to provide means for enabling the average householder to observe these precautions easily, quickly, inexpensively, and to make the necessary installation without tools, except a hammer or screw driver.

Black fabrics and drapes, while better than nothing, are not suitable because of their cost and also because they cannot easily be removed when once installed. In this respect, the objective has been to provide an arrangement in which the blackout shade at night is capable of serving its purpose effectively and yet is also capable of being raised out of the way during the daytime so that light can be admitted to the room.

In accordance with the present invention window shades which are made of paper are preferred as the main window covering or light obstruction. Shades constructed in accordance with the Johnson United States Patent No. 1,807,533, of May 26, 1931, having a black pigment so as to render them opaque to light, are very suitable. Window shades having coatings as described in the United States patent to Johnson No. 2,064,165, of December 15, 1936, are particularly suitable inasmuch as the coatings are not liable to cracking or to the development of pin points through which light might escape. However, in place of such window shades, other types of fibrous shades can be employed and it is also to be observed that woven fabric shades are also suitable though considerably more expensive. In any case, the shades are installed over the window area in the usual manner, for example, upon conventional shade brackets fastened to the window frame. With the shade proper passing from the roller adjacent the window there is little clearance space at the top of the window through which light might pass. The chief difficulty of obstructing the passage of light is at the bottom of the shade where it hangs free adjacent the sill.

In accordance with the present invention brackets are provided which cooperate with the shade slat at the lower edge of the shade for holding this portion closely against the window proper or the window frame. These brackets are mounted upon the sill at suitable intervals and provide clips within which the lower edge of the window shade, that is, that portion of the shade surrounding the slat, may be inserted. The slat stick in a conventional shade extends entirely across the lower edge thereof. The brackets hold this stiff edge of the shade against the sill and, thus, the entire shade is held in the desired position over the window. When day comes and it is desired to let light into the room the lower edge of the shade is disengaged from the clips and is then free to be raised by rolling it upon the shade roller in the usual manner.

In the preferred structure the brackets are of U-shaped clip formation and have slotted shanks through which nails or screws are passed to fasten the brackets to the sill. The slots in the shanks extend longitudinally thereof and therefore enable the brackets to be slid toward and away from the window over the sill surface. By sliding the brackets forwardly the lower edge of the window shade can be turned toward a horizontal plane until it lies substantially parallel to the sill surface and then entered into the clips of the brackets whereupon the brackets are pushed back to move the shade toward the surface of the window. In this manner the shade is held very closely to the window surface so that substantially no gaps exist through which light might pass or be reflected. With the bottom of the shade being held against the sill and with the shade roller tending to wind up the shade a tension is exerted for holding the shade in a relatively taut condition, smooth and flat over the window area.

If the windows are very tall and there is a tendency for the shades to separate from the frame they also are held against the frame either by means of gum tape, preferably of the pressure sensitive variety, applied at intervals along the edges of the shade, or by means of metal cleats rotatably mounted adjacent the edges so as to extend over the shade to hold it to the frame when they are in the horizontal position and so as to resides substantially parallel to the shade, to permit it to be lifted, when they are rotated through a quarter turn.

The drawing illustrates preferred embodiments of the present improvement and also shows other advantages of the invention.

In the drawing:

Figure 1 is a window "blacked out" by a shade installation in accordance with the present invention.

Figure 2 is a perspective view showing a typical clip for holding the lower edge of the shade to the window sill.

Figure 3 is a sectional elevation showing the manner in which the shade is held by the clip to the sill.

Figure 4 is a diagrammatic view illustrating engagement of the lower edge of the shade with the clip.

Figure 5 is a fragmentary elevation showing a cleat installed upon a window frame for holding the edges at the mid portion of the shade to the frame.

As shown in Figure 1, the shade is mounted on a spring actuated roller in the usual manner and the roller is supported between brackets 2 which are mounted on the window framing 3. The shade 4 depends from the roller over the face of the window and terminates in a hemmed lower edge 6 with a conventional wooden slat or the like 7 carried within the hem to stiffen the lower edge of the shade. A pull cord 8 likewise passes through the hem and through the slat thereof in the usual manner. The shade, the roller and the brackets, as well as the mounting thereof upon a window, do not form any part of the present invention and are not therefore described in more detail.

The clips used for holding the lower edge of the shade are indicated generally at 9 in Figure 2. It is desirable to mount at least two of these brackets on the sill at spaced intervals across the window, more being used if the window is a very wide one.

The clips 9 preferably are U-shaped pieces having a long leg 10 and a relatively short leg 11 which, cooperating with the long leg, forms a clip for receiving the lower edge of the window shade. The short leg 11 has a ridge 12 extending across its inner face in order that the clip may frictionally hold the lower edge of the shade and thereby prevent it from becoming unseated. The ridge preferably is of a generally rounded configuration so that the lower edge of the shade is not marred when it is inserted in the clip. The lateral spacing of the short leg from the long leg is such that the lower edge of the shade, including the wooden slat contained within the hem thereof, fits snugly within the aperture. It is desirable to construct the brackets of light weight sheet metal; in this manner the clip is relatively yieldable and spring-like.

Long leg 10 of the clip is provided with an elongated slot 13 extending longitudinally of the bracket. This slot is sufficiently wide to permit a nail or screw to pass through it.

The mounting of the clip upon the sill of the window is shown best in Figures 3 and 4. The outer face of the long leg rests against the surface of the sill, with the long leg extending toward the window, and the clip portion of the bracket being farthest removed therefrom. In installing the bracket it is desirable to place a washer over the long leg 10 and then pass a nail or screw through the washer and the slot in such manner that the bracket may be slid frictionally over the sill surface. It is also desirable to position the bracket upon the sill so that when the bracket is pushed toward the window as far as possible the inner edge of the long leg will be just adjacent the window frame. The shade preferably is of such width as to substantially overlap the window and the marginal portions of the frame thereof.

The fastening of the shade to the clips is shown best in Figure 4. With the brackets pulled out as far as possible away from the window, the hemmed edge of the shade is turned from its normally vertical position to a substantially horizontal position, that is, flat with respect to the window sill. The shade is then pulled down sufficiently far to enable the forepart of the hem to enter the clips, thereby seating the lower edge of the shade within the clips. The clips are then pushed back toward the window to carry the entire lower portion of the shade to light sealing position over the frame.

If the window is very high and the shade roller does not provide adequate tension for maintaining the edges of the shade flatly against the frame at the mid portions of the shade, cleats of the type shown in Figure 5 may be employed. These cleats are metal elements adapted to be nailed to the frame adjacent the shade edge in order that they may extend in one position over the shade to hold it against the frame. When rotated through a quarter turn these cleats reside substantially parallel to the shade edge and, therefore, permit the shade to be raised and lowered freely.

As an item of economy, it is to be observed that these cleats 14 may constitute the punchings which are removed from the main brackets when the slots 13 are cut therein. As such, these pieces would ordinarily be waste material. However, they serve usefully as cleats for fastening the edges of the shades and their use for this purpose entails no additional cost.

Having described my invention, I claim:

1. A bracket device of the class described comprising a piece of sheet metal having an end portion thereof bent over to constitute, with the unbent portion, a U-shaped clip adapted to receive the lower edge of a window shade, with the unbent portion having slot means therein for receiving a fastener by which the bracket can be slidably mounted upon the window sill.

2. A bracket adapted to be mounted upon a window sill for holding the lower edge of a window shade in substantially light sealing relationship with respect to the window frame and sill, said bracket comprising a piece of sheet metal having an end portion thereof bent over to form a U-shaped clip adapted for engagement with the lower edge of a window shade, the said bent over portion being yieldable and having smooth edges whereby the lower portion of the window shade may be attached to and detached from the clip without substantial marring of the surface thereof, with the unbent portion of said bracket having a slot therein for receiving a fastener by which the bracket may be slidably mounted upon the window sill.

3. A bracket adapted to be mounted upon a window sill for holding the lower edge of a window shade in substantially light sealing relationship with respect to the window frame and sill, said bracket comprising a piece of sheet metal having an end portion thereof bent over to form a U-shaped clip adapted for engagement with the lower edge of a window shade, the bent over portion of the bracket having a ridge extending laterally across its inner face, said ridge constituting a detent for frictionally engaging the shade material, with the unbent portion of said bracket having an elongated aperture therein for

receiving a fastener by which the bracket may be slidably mounted upon a window sill for movement toward and from the window sash.

4. A device for detachably fastening the lower edge of a window shade to a window sill, the said device constituting a bracket presenting a U-shaped clip for reception of the hemmed edge of a window shade and having additional means by which the bracket may be slidably mounted upon the window sill to move to and from the window sash, whereby the bracket can be slid over the sill toward the sash after the hemmed edge of the shade has been entered into the clip portion of the bracket.

5. A device of the class described comprising a piece of sheet metal having means at an end portion thereof constituting a yieldable clip for receiving the lower edge of a window shade, the said piece of metal having slot means therein for receiving a fastener by which the bracket can be slidably mounted upon the window sill.

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