

No. 875,129.

PATENTED DEC. 31, 1907.

E. B. STEPHENSON.
WINDOW SHADE.

APPLICATION FILED AUG. 9, 1907.

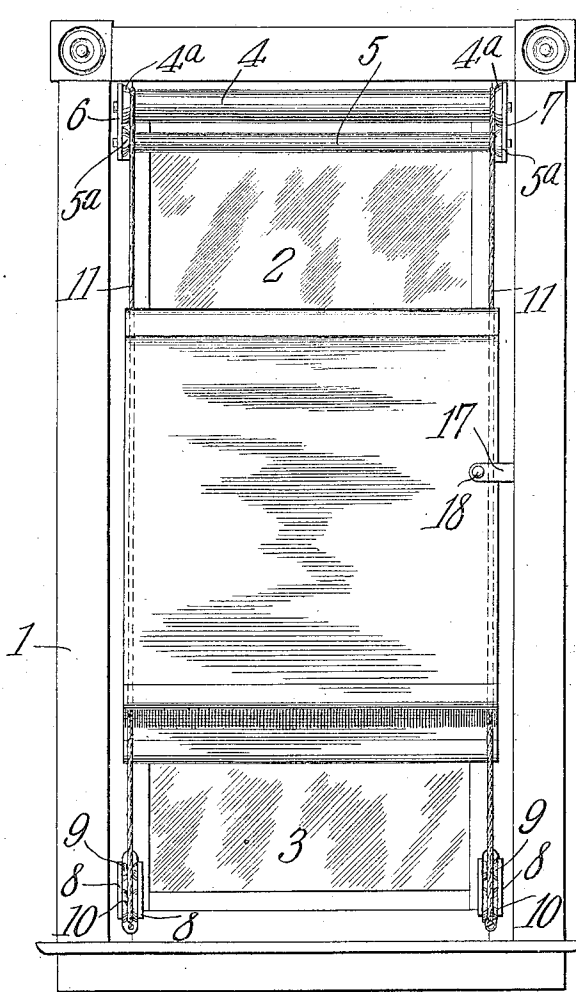


Fig. 1.

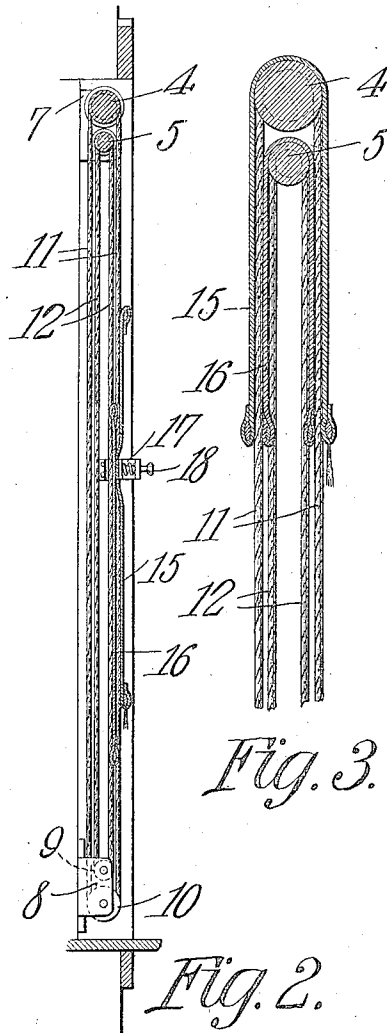


Fig. 3.

Fig. 2.

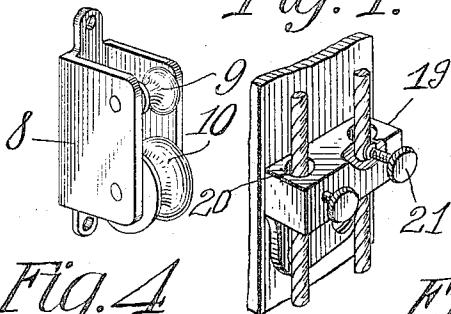


Fig. 4.

Fig. 6.

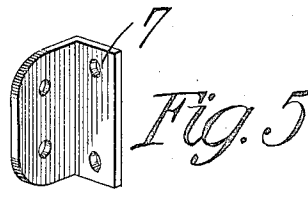


Fig. 5.

Witnesses

E. B. Stephenson
C. A. Denton

Inventor
Errett B. Stephenson

By *Cash & Co*
Attorneys

UNITED STATES PATENT OFFICE.

ERRETT B. STEPHENSON, OF WAWAKA, TEXAS.

WINDOW-SHADE.

No. 875,129.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed August 9, 1907. Serial No. 387,865.

To all whom it may concern:

Be it known that I, ERRETT B. STEPHENSON, a citizen of the United States, residing at Wawaka, in the county of Ochiltree and State of Texas, have invented a new and useful Window-Shade, of which the following is a specification.

My present invention relates to improvements in window shades, and it has for its object to provide an improved device of this character that is capable of being adjusted at any distance from the top or bottom of the window to regulate the light or ventilation, as may be desired, the shade embodying a plurality of curtains that are capable of being adjusted independently and are so combined that they are capable of closing the entire window opening or only a small portion thereof, as may be desired.

Another object of the invention is to provide a device of this character that may be bought cheaply and readily installed, and one which, in practice, cannot be blown out of position by drafts through the window.

To these and other ends, the invention comprises the various novel features of construction and combination of parts, which will be hereinafter more fully described and pointed out particularly in the appended claims.

In the accompanying drawings:—Figure 1 is a front elevation of a window casing equipped with a shade constructed in accordance with the present invention. Fig. 2 represents a vertical section of the window and the shades shown in Fig. 1. Fig. 3 is a detail sectional view on an enlarged scale showing the relative position of the curtains when the shade is fully open. Fig. 4 is a perspective view of a pair of the guiding rollers for the curtain operating cords. Fig. 5 is a similar view of a bracket for supporting the upper curtain rollers. Fig. 6 is a detail view of a cord holder which may be used in connection with the shades or curtain.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

Curtain shades constructed in accordance with the present invention are adapted for use generally on windows of various kinds and in various places, the construction of the shade being such that any desired amount of light or air for ventilating purposes may be admitted not only at the bottom of the window, as is necessarily so with an ordi-

nary shade, but the curtains are so arranged in the present instance that they may be adjusted to admit the desired quantity of light or air either at the top of the window or at any desired elevation, the curtains being so mounted that air currents through the window curtains cannot displace them or blow them aside, and they are capable of being manipulated with facility.

In the present embodiment of the invention, the shade is shown applied to an ordinary window casing 1 having the upper and lower sashes 2 and 3 mounted to operate therein in the usual way. On top of the casing a pair of curtain guiding rollers 4 and 5 is mounted, the rollers being supported at their ends by means of a pair of brackets 6 and 7 which are secured to the casing. The curtain guiding rollers may be of any suitable length to correspond with the width of the curtains that may be employed, and they are preferably provided at their ends with flanges 4^a and 5^a to guide the shades and prevent displacement of the curtain operating cords.

Adjacent to the lower edge of the casing are mounted pairs of guiding rollers for the operating cords, each of these pairs of rollers being mounted in a bracket 8 which is suitably secured to the window casing and has a pair of rollers 9 and 10 journaled therein, the rollers being preferably grooved to prevent lateral disengagement of the operating cord.

Passing over the upper roller 4 at points in proximity to its ends are a pair of operating cords or tapes 11, the latter being composed of any suitable material and are of endless form, the lower portions of the tapes passing over the lower rollers 10. A pair of similar operating cords or tapes 12 pass over the lower roller 5 of the upper pair, the lower portions of these cords or tapes coöperating with the rollers 9 at the lower portion of the window. The two pairs of operating cords carry curtains 15 and 16 which may be composed of oiled cloth or other appropriate material that will render them flexible and sufficiently opaque, each curtain being of a length equal substantially to one-half of the window opening and they are independently adjustable. These cords with their respective curtains form endless belts movable around the rollers.

In order to prevent interference or friction between the curtains, the lower roller 5 of the upper pair and the upper rollers of the

lower pair are preferably smaller in diameter than the other rollers, so that the cords and curtains will operate in different planes.

Whenever it is desirable to admit light or 5 air at the upper portion of the window, the operating cords of the two curtains are manipulated so as to draw both curtains over the upper pair of rollers and to a position intermediate the end of the window, as shown 10 in Figs. 1 and 2. By drawing one of the curtains upwardly until its upper edge reaches the upper pair of rollers and lowering the other curtain until its lower edge reaches the 15 lower set of rollers, the window will be completely closed, the proximate edges of the curtains overlapping at about the center of the window. Should it be desirable to admit considerable light or air, it is only necessary to adjust the curtains to the position 20 shown in Fig. 2, that is to say, both curtains are passed over the respective upper rollers until their opposite edges are even, the curtains then covering a portion of the window opening equivalent approximately to one-half 25 of their length.

In practice, it may be found desirable or necessary to provide a suitable device for retaining the curtains in the different adjusted positions, a locking device of this character 30 being shown in the present instance which embodies a bracket 17 rigidly secured to the window casing and having a spring operated plunger 18 which is arranged to cooperate with the two operating cords at one side of 35 the shade, the pressure exerted by the plunger serving to bind the cords sufficiently to effectually prevent movement of the curtains. It may also be advantageous in some cases to provide housings for the lower portions 40 of the operating cords, the housing extending from the lower pairs of rollers at the opposite sides of the window casing upwardly toward the center of the window, such a construction protecting the cords from breakage 45 and insuring a neat appearance.

If desired means such as shown in Fig. 6 may be employed for securing the shades against movement. This device consists of a block 19 having openings 20 extending 50 therethrough and through which the cords are designed to extend. Set screws 21 are

provided for binding the cords within the openings as shown.

What is claimed is:—

1. A device of the character described comprising inner and outer endless belts, each 55 belt comprising a curtain and a flexible connection between the ends of the curtain, said outer belt being extended around the inner curtain and each belt being movable in the 60 direction of its length, and revoluble means for supporting the belt to permit independent movement thereof.

2. A window shade embodying a pair of upper curtain guiding rollers, pairs of independently operable cords passing over the 65 said rollers, a set of lower rollers adapted to cooperate with the lower portions of the operating cords, and a flexible curtain carried by each pair of operating cords. 70

3. A window shade embodying a pair of upper and lower curtain guiding rollers journaled one above the other, a pair of brackets adapted to be secured to the lower portion of the window casing and each having a pair of 75 upper and lower cord guiding rollers journaled therein, a pair of operating cords passing over the upper curtain guiding roller and over the lower pair of cord guiding rollers, a second pair of cords passing over the lower 80 curtain guiding roller and cooperating with the upper pair of cord guiding rollers, and a flexible curtain carried by each pair of operating cords.

4. A window shade embodying a pair of 85 upper curtain guiding rollers, pairs of independently operable cords passing over the said rollers, a set of lower rollers adapted to cooperate with the lower portions of the operating cords, and a flexible curtain carried 90 by each pair of operating cords, and a locking device adapted to cooperate with the operating cords to secure them in fixed relation and prevent movement of the curtains.

In testimony that I claim the foregoing as 95 my own, I have hereto affixed my signature in the presence of two witnesses.

ERRETT B. STEPHENSON.

Witnesses:

W. F. SHIPP,
W. M. BURGESS.