(No Model.) 2 Sheets—Sheet 1.

G. L. CASTNER.

WINDOW SHADE.

No. 386,961. Patented July 31, 1888.

Fig. 1.

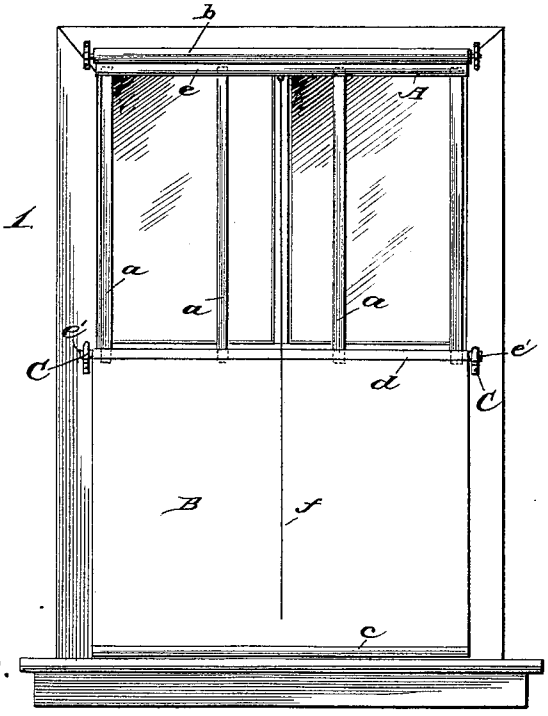


Fig. 2.

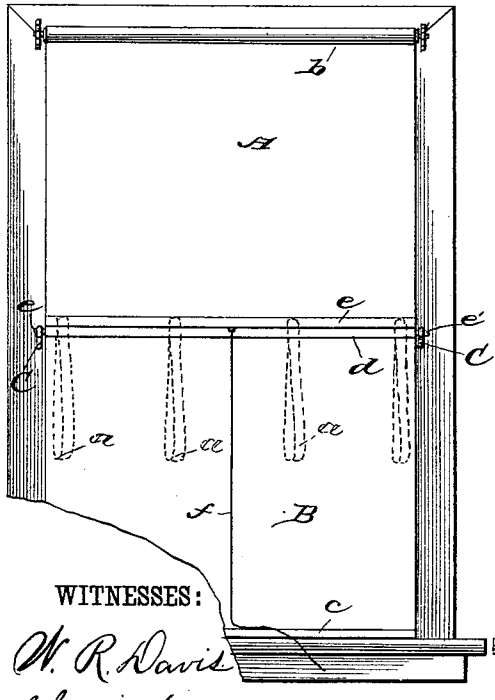
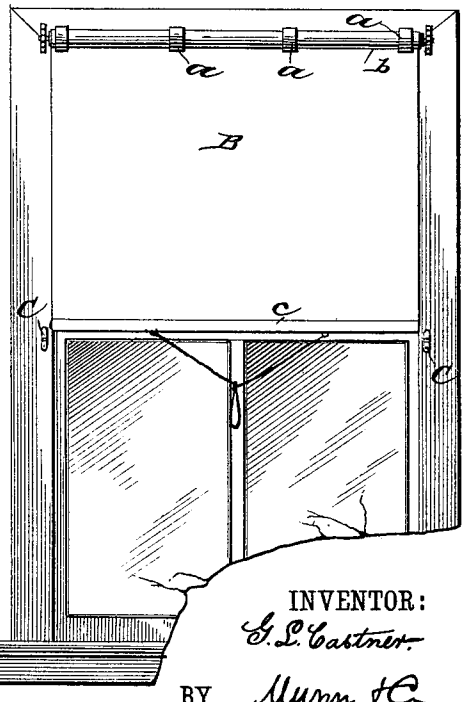


Fig. 3.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 4.

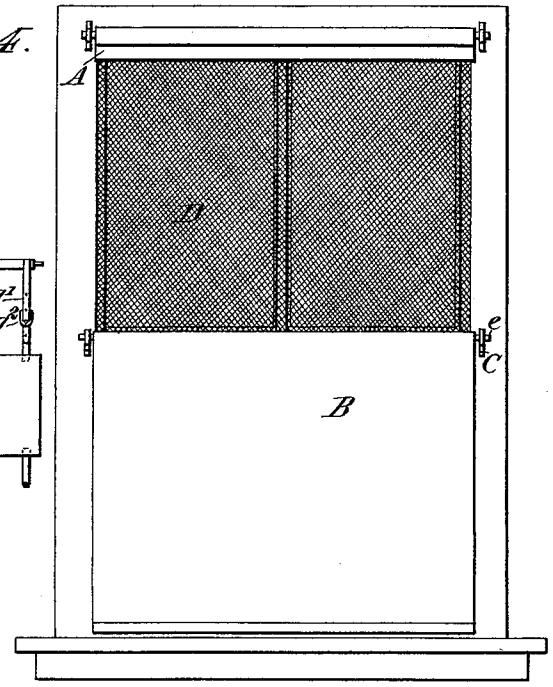


Fig. 8.

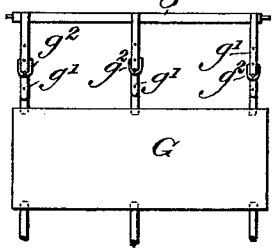


Fig. 7.

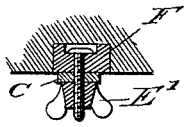


Fig. 5.

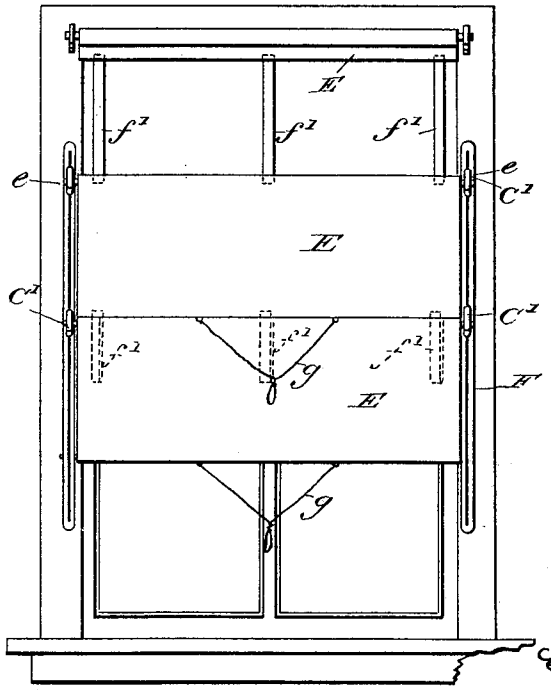
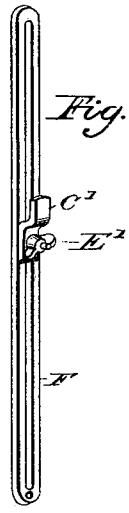


Fig. 6.



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UNITED STATES PATENT OFFICE.

GEORGE L. CASTNER, OF MEMPHIS, TENNESSEE.

WINDOW-SHADE.

SPECIFICATION forming part of Letters Patent No. 386,961, dated July 31, 1888.

Application filed August 30, 1887. Serial No. 248,287. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. CASTNER, of Memphis, in the county of Shelby and State of Tennessee, have invented new and useful Improvements in Window-Shades, of which the following is a full, clear, and exact description.

This invention relates to an improvement in window-shades in which the shade is so constructed that it may cover the lower or upper part or intermediate portions or the whole of the window, as may be desired.

In ordinary shades the lower part of the window can only be shaded by pulling the shade entirely down, thus completely shading the upper part and excluding the light. This is often undesirable, as in a dressing-room, where it is often only necessary to shade the lower half of the window to afford privacy, or in an office, where frequently only the direct or reflected rays of light which enter through the lower part of the window are objectionable. To obviate these difficulties and to save the unnecessary and often inconvenient loss of light and ventilation, this shade is designed to cover either intermediate portions or the top or bottom sash of a window only, or both at once, if desired.

The shade is made in sections of opaque material connected by cords, tapes, or other suitable strips, or by a square of gauze of any suitable material. These tapes or strips may be of fixed lengths or adjustable to various lengths by means of buckles or other suitable means. They may also extend vertically, as shown, or extend diagonally crosswise, so as to be more evenly distributed about the roller when the shade is drawn up. The upper and lower ends of each section, except the upper end of the top section, are strengthened by a wooden or metallic strip to which the tapes or strips connecting the sections and the necessary pull-string, if a Hartshorn roller is used, are attached. The lower section or sections are provided with a suitable device by which the section may be suspended in position independently of the tapes or cords.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents the shade covering only the lower sash. Fig. 2 shows the window entirely shaded, and Fig. 3 is a view with only the upper sash shaded. Fig. 4 represents a modification in which the sections are connected by a screen. Fig. 5 is a modification in which the shade consists of more than two sections, and shows the adjustment of the supporting-hooks. Fig. 6 is a detail showing adjusting means for one of the supporting-hooks. Fig. 7 is a detail in horizontal section of the device shown in Fig. 6 attached to a window-frame, and Fig. 8 is a modification showing the upper section secured to a roller by tapes.

Referring to the drawings, the shade is shown as made in two sections, A B, of any suitable opaque material, connected by the tapes *a* and mounted on a spring-roller, *b*. The ends of the lower section are strengthened by rods or bars *c d* of any suitable material, and the lower end of the upper section by a rod or bar, *e*. It will be seen by the foregoing description that when the spring-roller *b* is set in motion by pulling down on the cord *f* the section A will be rolled up together with the tapes *a* and section B.

In order that the section B may be suspended in position when it is desired to cover the whole of the window, as in Fig. 2, a suitable means must be provided whereby it may be suspended independently of the tapes *a*. For this purpose the ends *e* of the bar *d* project, so as to rest in hooks C on the casing. Instead of the hooks C and projecting ends *e*, any suitable means may be used whereby the section B can be suspended over the lower part of the window.

When the shade is drawn as shown in Fig. 2, the tapes *a* hang out of the way, as shown in dotted lines. Although the shade is shown as made in two sections, it is not intended to limit the device thereto, as it may be desired to provide several sections connected by tapes, so that different parts of the window may be shaded. In such a construction, as well as in the one shown, the several sections will equal the length of a shade covering the whole window, and there will therefore be no extra amount of material to be wound upon the roller. Moreover, by means of the bar and hooks the lower section will not hang down on the floor or below the window.

Where a number of sections connected by

tapes are used, several bars with projecting ends and hooks, or other suitable suspending devices will be employed. It will be seen that as the hooks C open upward, the projecting ends *e* will be easily guided into the same and rest therein, and release themselves when the shade is drawn up. The hooks C may be fixed or be arranged on a sliding bar to be adjustable.

In lieu of the tapes, the sections may be connected and suspended from one another by means of squares of gauze or other open-work material, having their edges secured to the adjacent edges of the sections which they connect.

For convenience, pull-cords *g* may be attached to each section, as shown in Fig. 5.

In the modification shown in Fig. 4 the sections A B of opaque material are connected by a netting, D, in lieu of the tapes *a*, whereby the entrance of insects is prevented when ventilation is desired.

In the modification shown in Fig. 5 the shade consists of several sections E of opaque material connected by tapes *f'*, the sections together equaling the length of the window. By means of this construction different parts of the window may be shaded, accordingly as they are adjusted by the roller and tapes. They may also be adjusted by the modification shown in Figs. 5, 6, 7, consisting of bars having projecting ends *e* and hooks C' sliding on slotted strips F, connected with the window-casing flush with the surface thereof, and having ribs H to permit the play of the head *h* of a screw, *h'*, adapted to slide in the slotted bar or strip F and connected to the thumb-nut E'. By means of the latter the hooks C' are clamped in adjusted position on the strips F.

I do not intend to limit myself to the specific construction described for independently holding the lower section or sections in adjusted position, as any other adjustable means may be employed.

In the modification shown in Fig. 8 the upper section, G, is mounted on the spring-roller *b* by means of tapes *g'*, which roll or unroll upon the roller *b*, whereby the upper part of the upper sash may be shaded or not, as desired. The tapes may be lengthened in any suitable manner—as, for example, by means of buckles g^2.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A window-shade formed in sections, of opaque material, suspended from one another and having their adjacent edges connected together by tapes or open-work material to form openings between them, and the uppermost section suspended by its upper edge from the top of the window, with a raising and lowering device for moving the entire shade at one operation, substantially as described.

2. The combination, with a window-casing having slotted strips F, with adjustable hooks C', and the spring-roller *b*, of a window-shade consisting of sections E, having their adjacent edges connected by tapes *f'*, and the upper edge of the lower section having a bar with projecting ends *e* adapted to engage hooks C', substantially as described.

3. A window-shade constructed in sections, of opaque material, having their adjacent edges connected together by tapes, and the upper section suspended from a spring-roller by means of tapes, substantially as described.

4. A window-shade constructed in sections connected together, substantially as described, by tapes or open-work material to form openings, and having a bar with projecting ends on the lower section or sections, in combination with open hooks or rests on the window-casing, whereby the lower section or sections are suspended independently of the upper section or sections, substantially as described.

5. A window-shade constructed in sections connected together by strips or tapes, the upper section mounted on a spring-roller and the lower section or sections having a bar with projecting ends, in combination with upwardly-opening hooks or rests on the window-casing, whereby the lower section or sections are suspended independently of the upper section or sections, substantially as described.

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