(No Model.)

2 Sheets—Sheet 1.

W. BATEMAN.

WINDOW SCREEN.

No. 316,517. Patented Apr. 28, 1885.

FIG. 2.

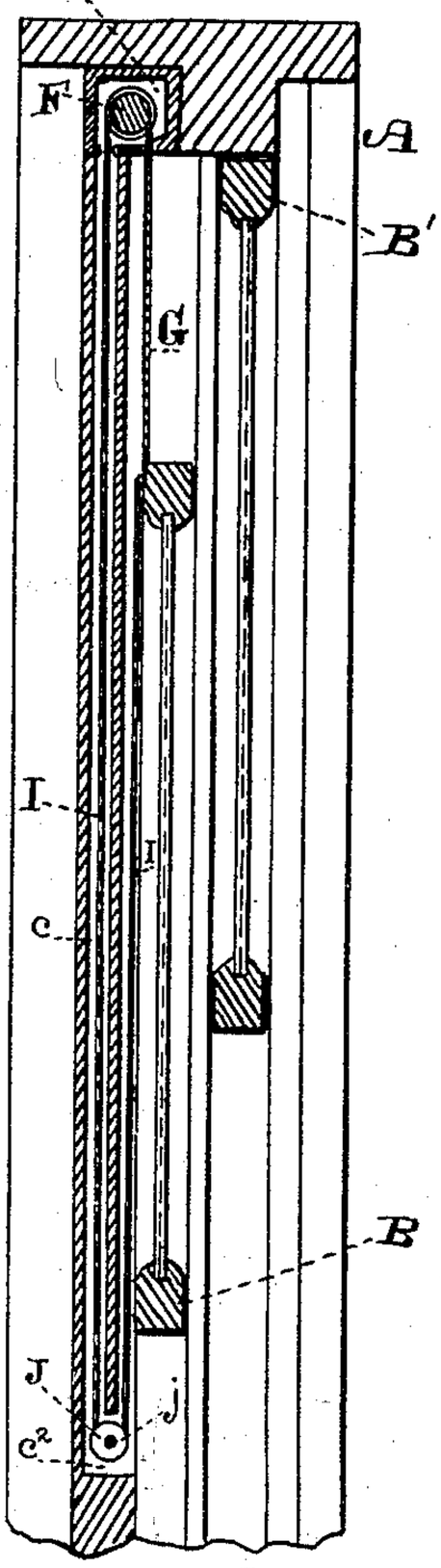
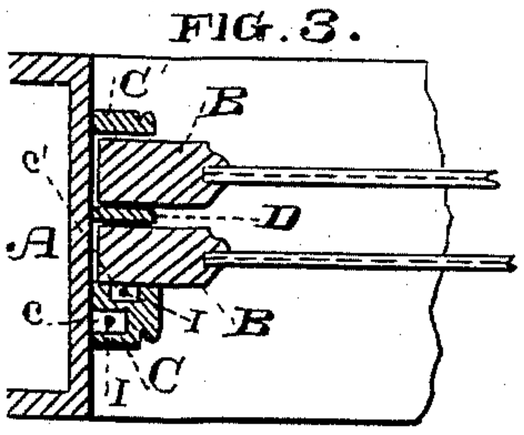


FIG. 3.



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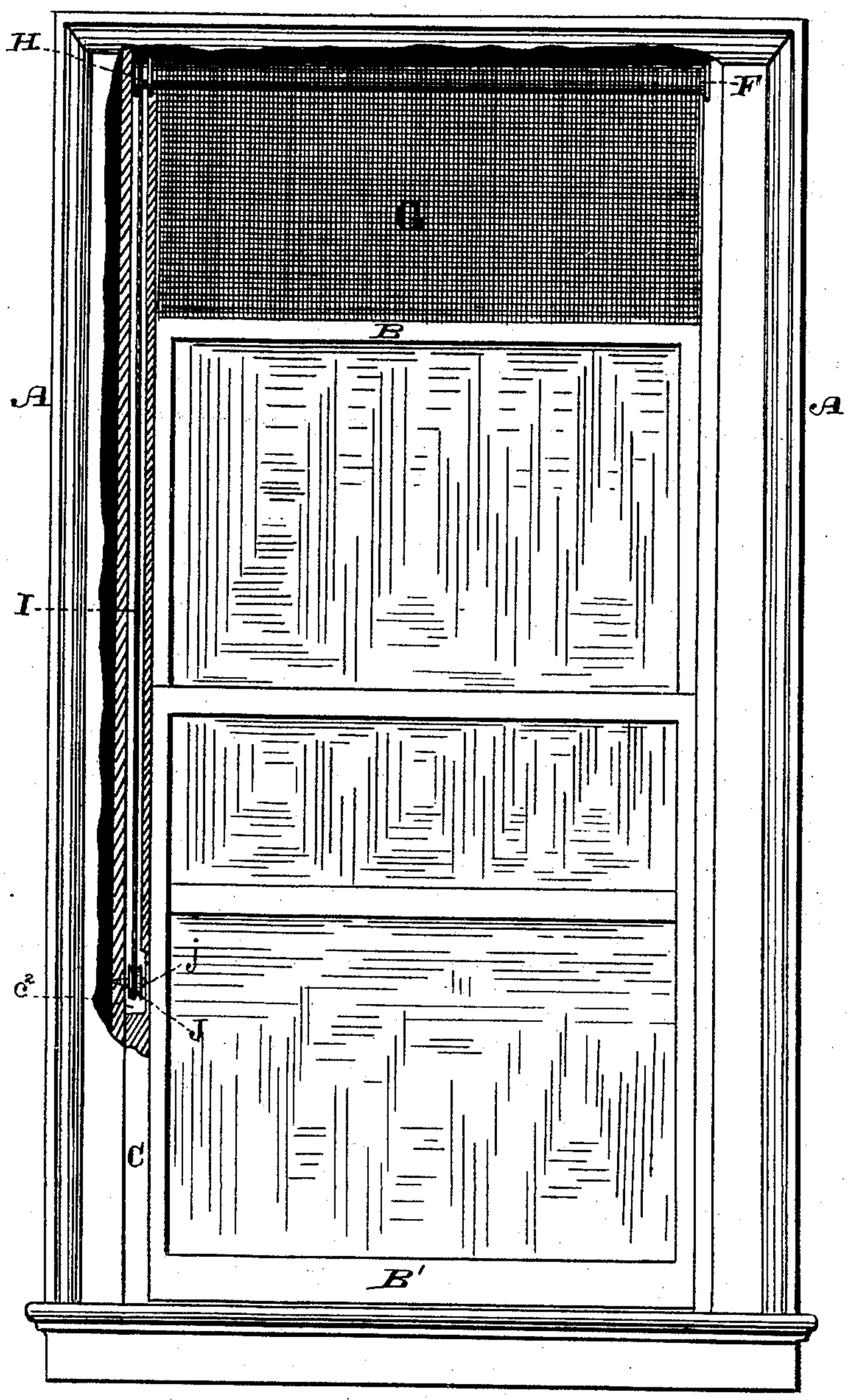

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(No Model.)

2 Sheets—Sheet 2.

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FIG. 4.

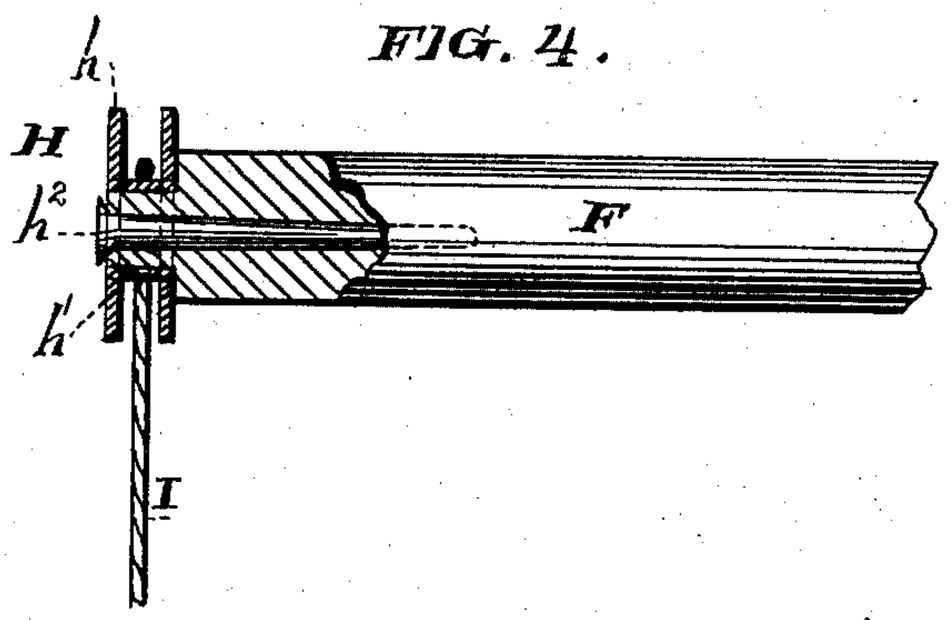
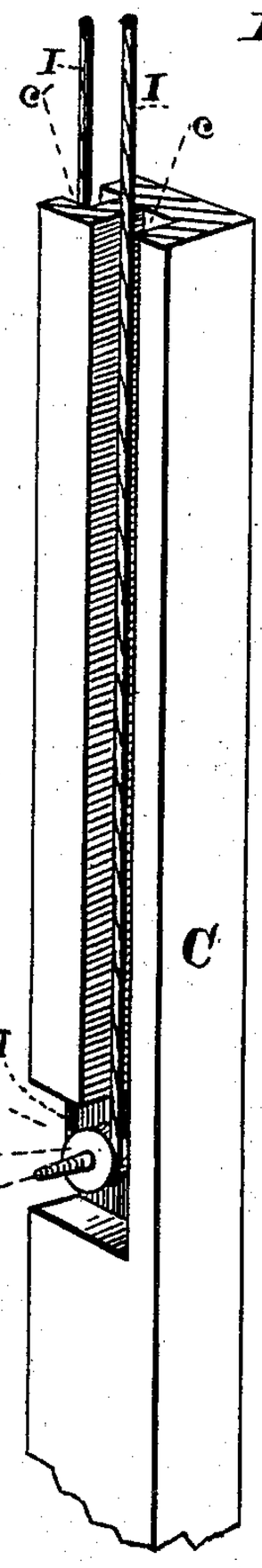


FIG. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM BATEMAN, OF SAN FRANCISCO, CALIFORNIA.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 316,517, dated April 28, 1885.

Application filed September 26, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BATEMAN, of the city and county of San Francisco and State of California, have invented an Improvement in Window-Screens; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to that class of window-screens in which the screen material is attached to either sash by one end and adapted to be wound and unwound from a roller mounted above or below in the window-casing, whereby when the sash is opened the screen unwinds and covers the open space, and when closed it winds up out of the way.

My invention consists in a cord of any suitable nature attached at one end to a pulley on the winding drum or roller of the screen, and thence passing to and around a suitably-located guide-pulley and to the window-sash, to which it is secured, whereby the movement of the sash operates the winding drum or roller, as I shall hereinafter fully explain by reference to the accompanying drawings, in which—

Figure 1 is a front elevation of a window, showing my invention. Fig. 2 is a vertical transverse section. Fig. 3 is a portion of a horizontal section. Fig. 4 is a detail showing pulley H. Fig. 5 is a perspective view showing the course of the cord in the bead.

The object of my invention is to provide a simple and effective window-screen, easily adjusted to place, and perfect in operation.

A is the window-casing, having the glazed sashes B B′, upper and lower, respectively, adapted by means of the usual cords and weights to move up and down between the outside and inside beads, C C′, and parting-strip D in the ordinary manner.

Let into the top of the window-casing in any suitable manner, as by the box E, is a roller or drum, F, upon which the screen G is adapted to wind and unwind. The lower end of screen G is secured to the top of the upper sash, B, in a suitable manner, whereby when said sash is lowered the screen is unwound from its roller and covers the opening; but it is evident that some means must be provided to wind up the screen again as the sash is pushed up. It has been customary to accomplish this result by springs and weights; but these are liable to get out of order, besides being somewhat expensive and difficult to adjust. By my invention the upward movement of the sash itself produces the desired effect.

Upon the end of the roller or drum F is a pulley, H, to which a cord, I, is attached. This cord may be of any suitable material, and of a strength and durability sufficient for the purpose.

In the inner face of the outside bead, C, next to the pulley-stile, is cut a groove, *c*, and in its inner side, next to the side of the sash, is made another groove, *c′*, Fig. 5. A recess, c^2, is cut in the inner face of the bead C at the bottom of groove *c* and at a point below the lowermost limit of the top of the sash B. In this recess is mounted a guide-pulley, J, by means of a screw, *j*, driven into the pulley-stile of the window-casing. The cord I passes down in the groove *c* from pulley H to, under, and around pulley J, thence into the groove *c′* and up to the top of the sash B, to which it is attached, as shown. When the sash is moved up, the end of cord I is carried up with it, thus drawing on said cord and causing it to rotate the roller or drum F, whereby the screen G is wound up as the sash is raised.

I do not confine myself to the exact location of the guide-pulley J, herein shown, nor to the location of the screen-operating cord, for they may be differently placed; but I regard the arrangement shown as being practical and neat, as it removes them from sight and from danger of injury. To gain access to them the bead C has only to be removed.

Although I have described the screen G in connection with the upper sash alone, it is obvious that it can be placed in connection with the lower sash as well by mounting a screen-roller in the bottom of the casing, and placing pulleys and a cord in connection with said roller and sash in the same relative positions as those described.

The pulley H on the roller I make by means of a disk, *h*, separated from the roller end by a short tube, *h′*, and united by a tapering pin, h^2, as shown. In this way I make a pulley adapted to receive considerable cord.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. In a window having a screen attached to its sliding sash and adapted to be unwound from a roller or drum by the movement of said sash in opening, the means by which the screen is wound up as the sash is closed, consisting of a cord attached to the roller or drum and to the sliding sash, substantially as herein described.

2. The sliding sash of a window, the roller or drum mounted in the casing, and the screen G on said roller and connected with the sash, in combination with the means by which said roller is rotated to wind up the screen as the sash closes, consisting of a cord attached at one end to and adapted to rotate the drum, and at the other to the window-sash, said cord being suitably guided in its course between its end connections, substantially as herein described.

3. The window-sash B, roller F in the top of the window-casing, and screen G on said roller and attached to the sash, in combination with the means by which the screen is wound up as the sash is raised, consisting of the pulley H on the roller, the guide-pulley J below, and the cord I, attached to pulley H, passing under and around pulley J and up to the sash B, to which it is secured, substantially as herein described.

4. The window-sash B, roller F in the top of the window-casing, and the screen G on said roller and attached to the sash, in combination with the means by which the screen is wound up as the sash is raised, consisting of the pulley H on the roller, the guide-pulley J in a recess, c^2, in the inner face of the bead C, and the cord I, attached to pulley H, passing down in a groove, c, made in the inner face of bead C, to and around said guide-pulley J, and up in a groove, c', made in the inner side of the bead to the sash B, to which it is secured, substantially as herein described.

5. In a window having a screen attached to its sliding sash and adapted to be unwound from a roller or drum by the movement of said sash in opening, the cord I and pulleys H J, by which said screen is wound up as the sash is closed, in combination with the bead C, having grooves c c' and recess c^2, for receiving the cord I and pulley J, whereby they are concealed, substantially as herein described.

6. In a window having a screen attached to its sliding sash and to a winding roller or drum, as described, the combination of said roller or drum with the pulley H on its end, formed of a disk, h, separated from the roller end by a tube, h', and secured by a tapering-pin, h^2, substantially as and for the purpose herein described.

In witness whereof I have hereunto set my hand.

WILLIAM BATEMAN.

Witnesses:
S. H. NOURSE,
H. C. LEE.