

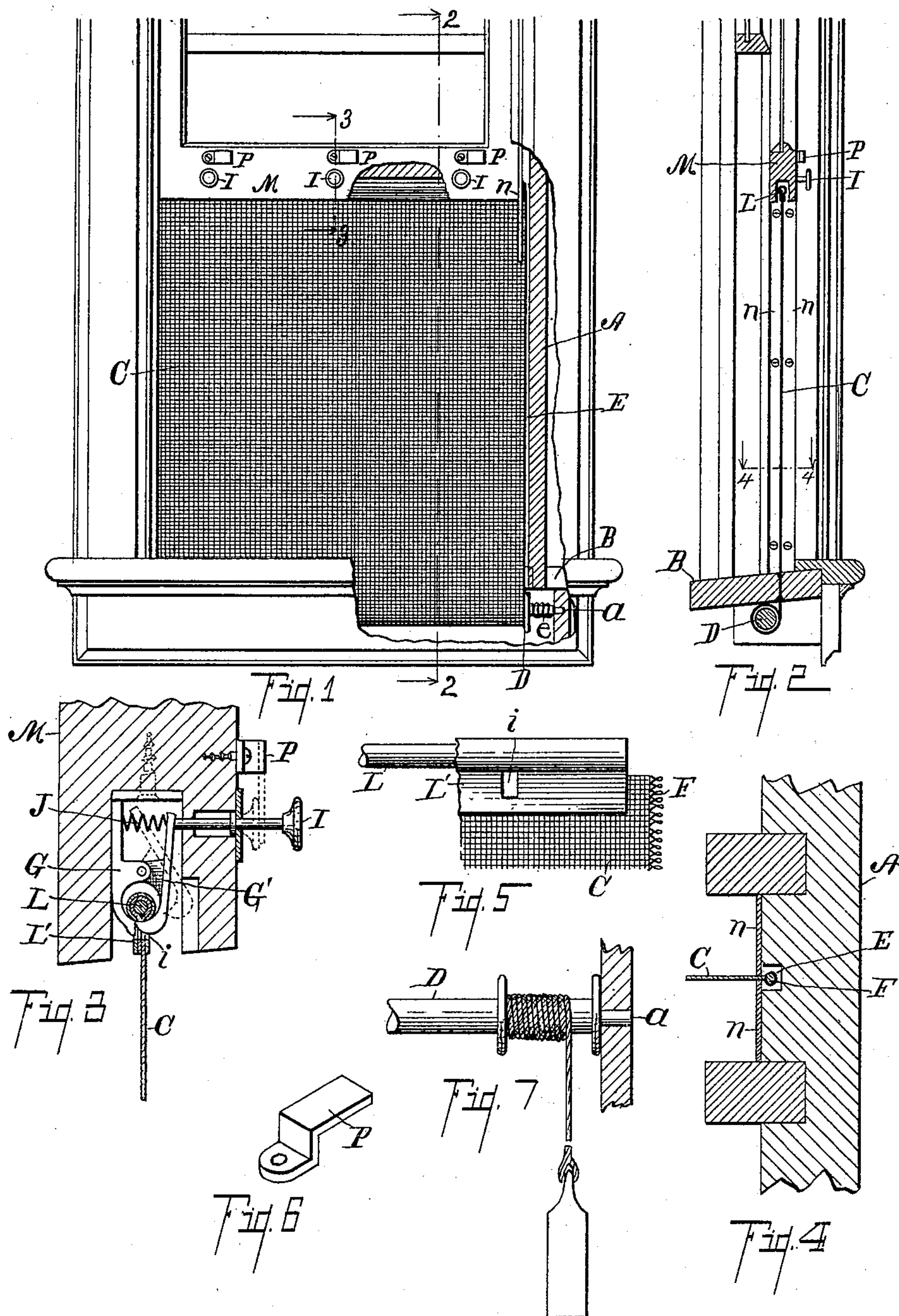
No. 618,830.

Patented Feb. 7, 1899.

T. E. BARR.  
WINDOW SCREEN.

(Application filed July 14, 1898.)

(No Model.)



Witnesses:

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# UNITED STATES PATENT OFFICE.

THOMAS E. BARR, OF KALAMAZOO, MICHIGAN.

## WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 618,830, dated February 7, 1899.

Application filed July 14, 1898. Serial No. 685,958. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS E. BARR, a citizen of the United States, residing at the city of Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented certain new and useful Improvements in Window-Screens, of which the following is a specification.

My invention relates to improvements in window-screens, and more particularly to improvements in roller window-screens.

This specification embodies the same matter as that set up in my former application, filed October 12, 1895, for window-screens, which application was finally allowed December 4, 1896, and was allowed to lapse, and was renewed and finally allowed again August 31, 1897, and again allowed to lapse, I never in the meantime having relinquished any of my rights to the same.

The objects of this invention will definitely appear in the description of the device which follows. I accomplish these objects of my invention by the devices and means described in the following specification and shown in the accompanying drawings, in which—

Figure 1 represents a front elevation of a window and frame with one of my improved screens in position, portions of the sash and frame being broken away to show details of construction. Fig. 2 is a sectional view on line 2 2 of Fig. 1. Fig. 3 is an enlarged detail sectional view on line 3 3 of Fig. 1 through one of the attaching devices. Fig. 4 is an enlarged detail sectional view on line 4 4 of Fig. 2. Fig. 5 is an enlarged detail view of one of the upper corners of the screen, showing its method of attachment. Fig. 6 is an enlarged detail view of one of the buttons P for holding the attaching devices in the open position. Fig. 7 is an enlarged detail view of a modification of the means of actuating the roller D.

In the drawings all of the sectional views are taken looking in the direction of the arrows at the end of the sectional lines, and similar letters of reference refer to similar parts throughout the several views.

Referring to the lettered parts of the drawings, B represents the window-sill.

A represents the side pieces of the window-frame.

M represents the lower cross-piece or base of the sash. Lengthwise of the sill and directly underneath the sash a slot is cut. Beneath the window-sill and parallel therewith is a roller D, on which is wound the netting C. The roller is supported on a suitable axle *a*, which projects into bearings in the timber at each end. To the end of the roller spring *e* is located to put stress upon the same, so that it will wind up the netting automatically when the window is lowered. In the under side of the base M of the sash a longitudinal groove is cut. In the groove is located means for attaching to the top of the window screen C. The upper edge of the screen C is folded over a rod L, which runs at right angles thereto, and over this is folded a thin strip of metal L', which forms a suitable binding for the edge. Beneath the rod L and through the metal strip L' are punched clean-cut small holes *i* at convenient intervals for supporting the screen. Supported within the groove is a suitable bracket G, secured therein by a suitable fastening to the bottom of the groove. Pivoted to this bracket are hooks G', which are located in the proper position to engage in the holes *i*. Back of the upper ends of the hooks G' is a coiled spring J, which throws the hooks into engagement with the upper binding of the screen, as is clearly illustrated in Fig. 3. On the inner side of the base of the sash M is located a push-button I, from which a spindle extends inwardly to engage the upper ends of the hooks G'. Above this button is a turn-button P, which is adapted to swing over the same and retain it in the depressed position, as indicated in the dotted lines in Fig. 3, which holds the hook G' out of engagement with the upper end of the screen and permits the window to be operated without actuating the screen.

In the frame A, in each side of the window, a groove E is cut. At short intervals along the edge of the screen are secured or formed little enlargements F. These pass up and down in the grooves E when the window and screen are raised or lowered. Metal strips *n* are secured to each side of the groove E and form a very small slot between their edges for the passage of the screen C, keeping the screen very firmly in position by engaging the enlargements F, above referred to.



It will be seen that the window can be raised or lowered alone, or by engaging the upper edge of the screen by releasing the button I when the window is raised the screen will be drawn up to occupy the open space. The space itself is not limited or reduced by any inclosing frame for the screen. The screen itself presents a very neat and finished appearance.

10 This improved screen possesses the advantage of always being in position for use and can be used or not with only a moment's notice.

I desire to say that my improved screen can be considerably varied in its details without departing from my invention. The weight shown in Fig. 7 can be adopted instead of the spring *e*. (Shown in Fig. 1.) Other means could be used for actuating the roller. Other means might be provided for attaching the upper edge of the screen to the lower edge of the sash. While the device for securing the edge of the screen in the side of the frame is very useful and effective, a screen could be operated very successfully without such devices. It will be readily understood that my improved screen need not be confined in its uses to the lower part of the sash, but can be used at the upper part of the same with equal facility. Where it is desired, the screen and roller could be made use of to cover an entire window when the sash is entirely removed. In small windows, where there is plenty of room beneath, the roller itself might be dispensed with and the screen lowered flat into the wall beneath, using my improved attaching device for joining it to the sash.

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

1. In a window-screen, the combination of the grooved side pieces A, with strips *n* thereon for the purpose of reducing the mouth of the groove; the window-sill B, with a slot therethrough directly under the window-sash; a roller D beneath the window-sill and parallel therewith; coiled spring *e*, at the end thereof for actuating the same; screen C, attached to said roller and adapted to be wound

upon the same; enlargements F at each side of the window-screen; a transverse rod L, at the top of the same; a thin strip of metal L' folded over the same to form a binding, and containing apertures *i*; the base M, of the sash containing a longitudinal groove on its under side; brackets G, secured in said groove; hooks G', pivoted to said brackets G; springs J back of the upper end of said hooks to actuate the same to cause them to engage in the apertures *i*; push-buttons I, with spindles thereon adapted to press upon the upper end of the hooks G', to release the same; turn-buttons P, for holding said push-buttons I, in the depressed position when it is desired to operate the window without the screen; all substantially as described for the purpose specified.

2. In a window-screen the combination of a window-frame containing a suitable slot through which the screen passes; a transverse rod L, across said screen; a thin strip of metal L', folded over the same with apertures *i*, beneath said rod; the sash M, containing a groove in the edge thereof; brackets G, in said groove to which hooks G' are pivoted; springs J for actuating said hooks and holding them in the engaging position; push-buttons I, in said sash for pressing the hooks to open them; turn-buttons P, for holding said push-buttons in the depressed position, for the purpose specified.

3. In a window-screen, the combination of the window-sash containing a groove in its outside edge; a window-screen; a rigid binding on the edge of said screen to project into the groove in the sash; pivoted clamping-hooks in said groove to engage said binding; suitable push-buttons to actuate said hooks; a slotted window-frame for the passage of said screen; and a roller within the casing to receive said screen as specified.

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

THOMAS E. BARR. [L. S.]

Witnesses:

OTIS A. EARL,  
LELA M. BROWN.