F. D. WRIGHT.

FLY AND MOSQUITO BAR FOR WINDOWS.

No. 66,272. Patented July 2, 1867.

Fig. 1.

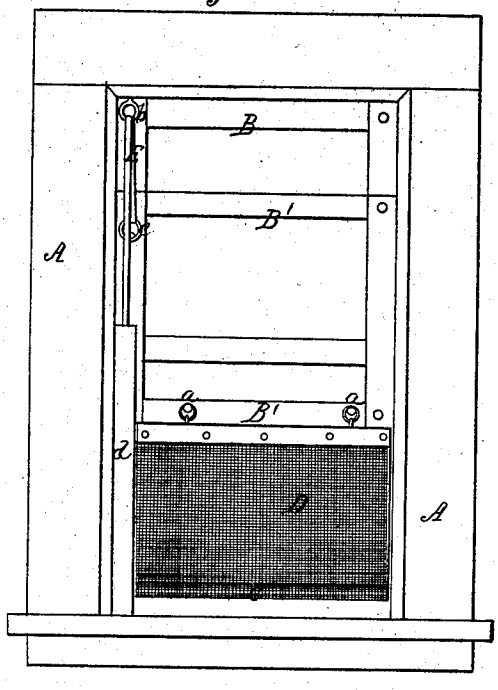


Fig. 2.

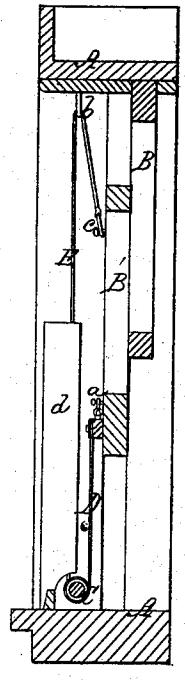
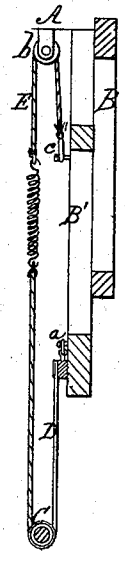


Fig. 3.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

United States Patent Office.

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Letters Patent No. 66,272, *dated July* 2, 1867.

IMPROVED FLY AND MOSQUITO-BAR FOR WINDOWS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, F. D. WRIGHT, of Jordan, in the county of Onondaga, and State of New York, have invented certain new and useful improvements in Fly and Mosquito-Bars; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is a front elevation of a window with my improvements applied thereto.

Figure 2, a transverse vertical section of the same.

Figure 3, a diagram showing a modified form of the operating-cord.

Like letters of reference indicate corresponding parts in all the figures.

My invention consists in producing a self-acting fly or mosquito-bar, by connecting the screen which passes around a roller with the sash, and operating it by an elastic cord attached to the roller and passing up and securing to the same sash so that an automatic circuit is insured.

As represented in the drawings, A is a window-frame, B the upper and B′ the lower sashes, constructed and operating in the usual manner. At the bottom of the window is situated a roller, C, on which winds the screen D. This screen connects to the lower end of the sash by hooks and eyes *a a*, or equivalent, so as to be detached at pleasure. To one end of the roller is attached a cord, E, which is elastic by being made of rubber, as shown in figs. 1 and 2, or by interposing a spiral spring, as in fig. 3. This cord passes upward to the top of the casing over an eye or pulley, *b*, and thence downward, and attaches to the same sash that holds the screen by means of a hook and eye, *c*, or equivalent, by which it also is made detachable. Thus an automatic circuit is produced, whereby, when the sash is raised, the screen will be raised with it, and *vice versa*. If desired a guide, *d*, may be employed to retain the cord properly in place, and insure its winding regularly on the end of the roller.

Several important advantages are secured by this arrangement of parts. The automatic action insures the opening of the screen without any adjustment by the hands, and without the necessity of wires and eyes, as where a sliding curtain is employed. The edges of the screen fitting closely to the sides of the window, effectually close the passage. The elasticity of the cord takes up all slack and insures the proper action of the roller. It will be noticed that as the screen winds and unwinds it correspondingly increases and decreases the size of the roller, and it is necessary to compensate for this difference to keep the screen taut. The elasticity of the cord accomplishes it perfectly, and insures its uniform and straight winding on the roller. In addition to this, when the screen is detached from the sash and it is desired to connect it again, the elasticity will allow the screen to be raised or adjusted to any height to meet the sash irrespective of position. A stiff cord would not answer the purpose since any looseness produced by expansion or otherwise would produce a corresponding looseness in the screen.

In addition to the above, it will be noticed that the cord acts as a balance to the sash to hold it in place at any desired position in the same manner as the ordinary balance. In this respect the elasticity is of very great importance, for it obviates all rigidity and irregularity of action and prevents any jar or strain on the parts. By making both the screen and the cord detachable from the sash, it will be seen that if desired the sash can be used alone and unbalanced, or the cord can be used with the sash to balance it, and without the screen; or the screen can be used with the sash without connecting the cord. Under some circumstances it may be desired to use the arrangement in all these forms. The screen when rolled up is entirely out of the way and but little exposed, and is in a most compact form. It is obvious that this arrangement can be reversed and connected with the upper sash in a similar manner.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination with the sash of a window of the automatic fly and mosquito-bar made up of the screen D, roller C, and cord E, arranged and operating in the manner and for the purpose herein set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

F. D. WRIGHT.

Witnesses:

CHAS. F. WRIGHT,

D. G. MORGAN.