(No Model.)

E. B. WALTER & J. P. VOELKER.

WINDOW SCREEN.

No. 253,137. Patented Jan. 31, 1882.

Fig: 1.

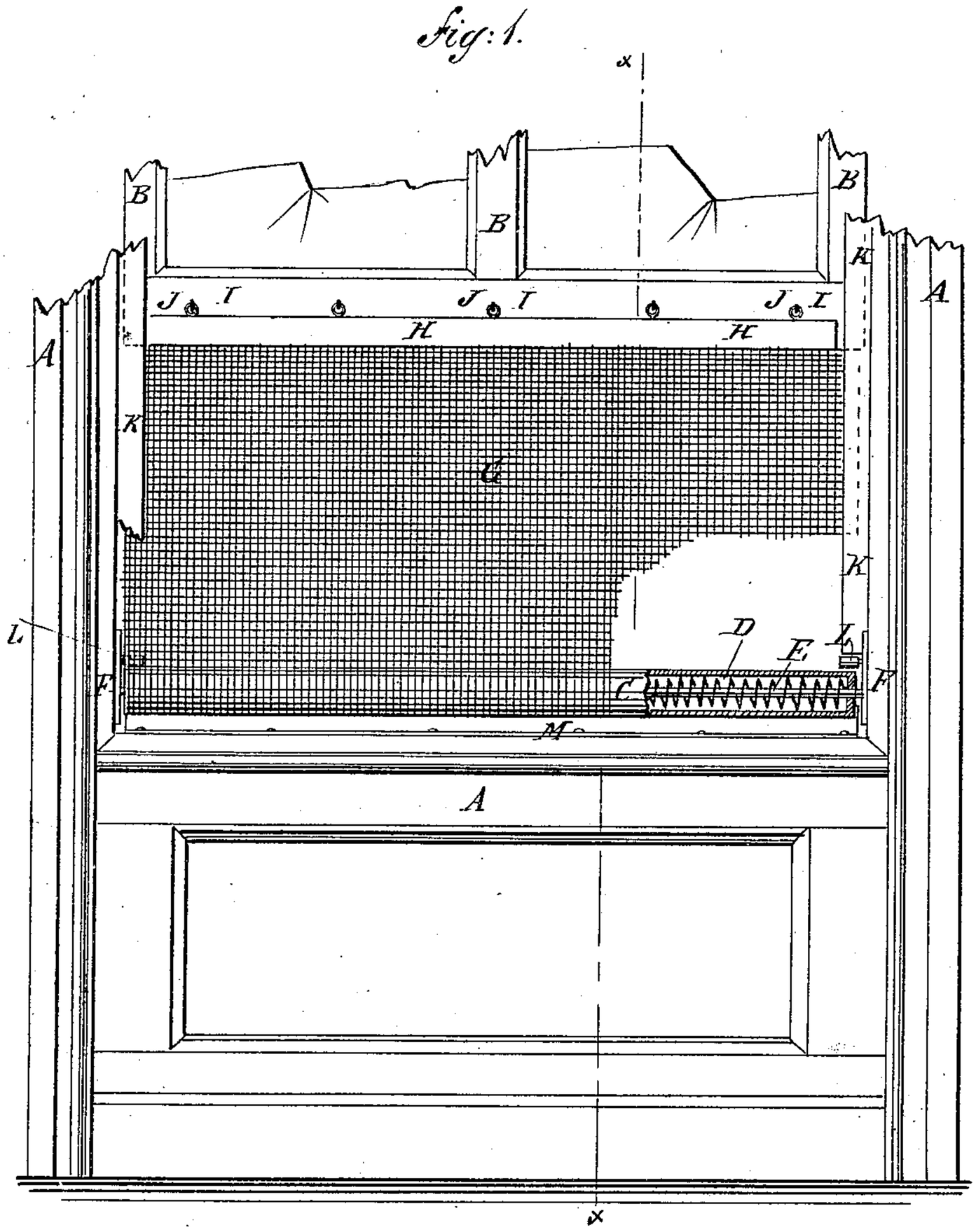
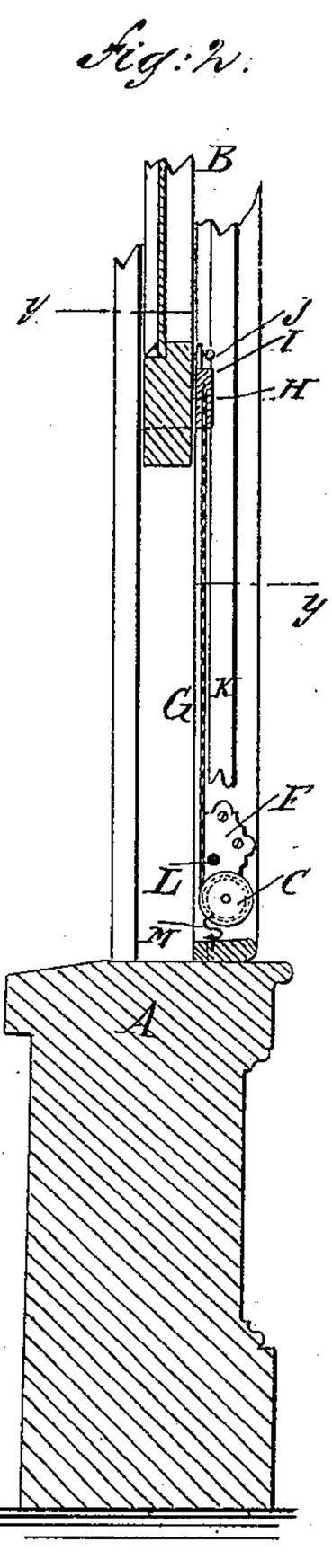


Fig: 2.



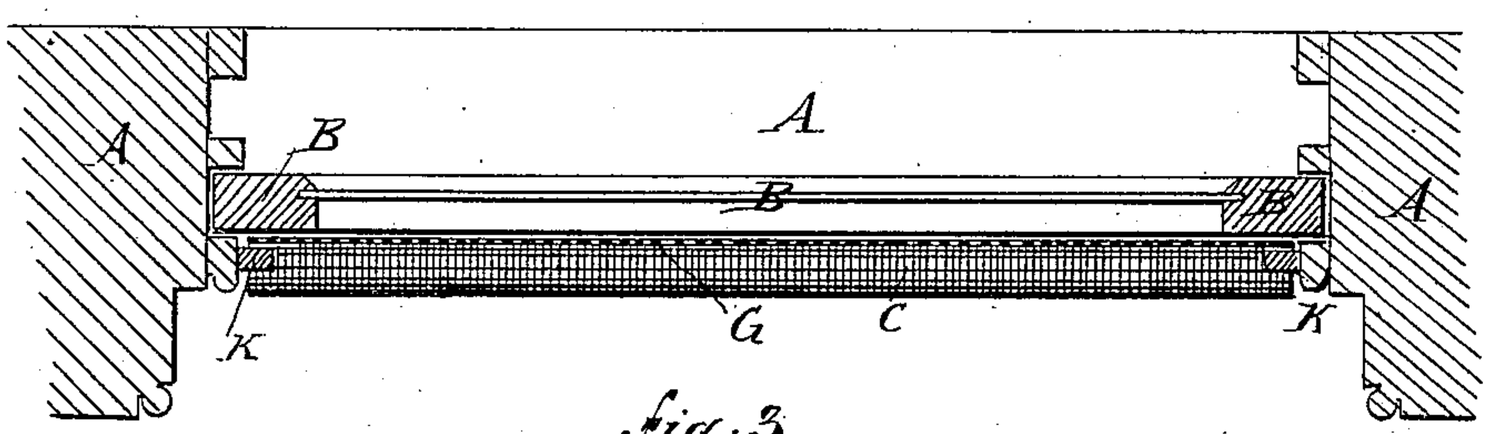


Fig: 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

ERNEST B. WALTER AND JOHN P. VOELKER, OF NEW YORK, N. Y.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 253,137, dated January 31, 1882.

Application filed September 24, 1881. (No model.)

To all whom it may concern:

Be it known that we, ERNEST B. WALTER and JOHN P. VOELKER, of the city, county, and State of New York, have invented a new and useful Improvement in Window-Screens, of which the following is a full, clear, and exact description.

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

Figure 1 is a front elevation of our improvement shown as applied to a window, and part being broken away. Fig. 2 is a sectional elevation of the same, taken through the line *x x*, Fig. 1. Fig. 3 is a sectional plan view of the same, taken through the broken line *y y*, Fig. 2.

The object of this invention is to provide window-screens constructed in such a manner that they will be extended and contracted as the window-sash is opened and closed.

A represents the casing, and B the sash, of a window.

C is a roller, which is made hollow, and within it is placed a spiral spring, D. One end of the spring D is attached to the roller C, and its other end is attached to the pivot-rod E, placed within the said roller C. The spring-roller C is loosely mounted on the rod E, secured to brackets F, attached to the casing A.

To the spring-roller C is attached, and around it is wound, the screen G, which can be made of wire-gauze or other suitable material. To the other end of the screen G is attached a bar, H, which extends across the window, and is provided with eyes, rings, or other suitable catches, I, to hook upon knobs J, hooks, or other suitable fastenings attached to the cross-bar of the sash B. With this construction, when the sash B is opened the screen G will be unwound from the spring-roller C, so as to cover the opening between the sash and casing, however much or little the said sash may be opened. The unwinding of the screen G turns the roller C and coils the spring D, so that the said spring D, as the sash B is closed, will turn the said roller C and again wind up the said screen.

K are guard-bars, attached to the casing A to overlap the side edges of the screen G, to keep the said side edges in place and prevent mosquitoes from entering the room through the space between the said screen and casing. The side edges of the screen G are guided into place at the sides of the guard-bars K by small guide-rollers L, pivoted to the said guard-bars K or to the casing A.

M is a spring-plate, attached to the part of the casing A near which the spring-roller C is placed, to close the space between the roller C and the said casing against the entrance of mosquitoes, as the said space varies in size by the winding of the screen G upon and the unwinding of the said screen from the said roller.

We are aware that it is old to attach a screen at one end to sash and at the other to a hollow roll having a spring on the inside, so that as the sash rises it will unroll the screen to cover the opening made, and as it comes down the spring will wind up the screen on the roll; also, that a spring-held lever-plate to form a close joint at the bottom of screen, together with guide-rods and guards, are not new in themselves; but

What we do claim as new and of our invention is—

The hollow screen-roll C, carrying internally a spiral spring on a rod, E, secured to the brackets F, in combination with the bar H, having eyes I, the sash-knobs J, the guard-bars K, carrying pivoted rolls L, and the spring-plate M, all arranged as shown and described.

ERNEST B. WALTER.
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Witnesses:
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