No. 710,661. Patented Oct. 7, 1902.

C. W. BERGER.

COMBINATION STORM AND SCREEN WINDOW.

(Application filed Mar. 5, 1902.)

(No Model.)

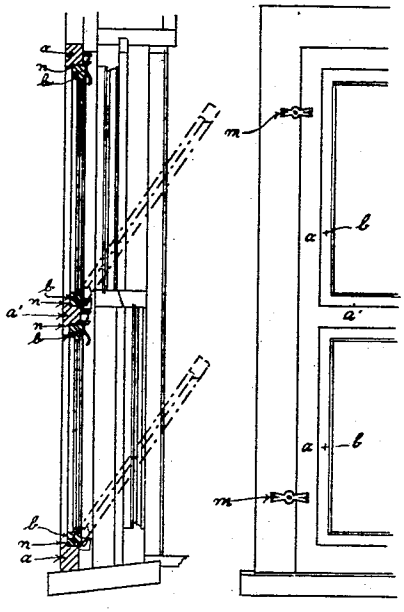


FIG. 1

FIG. 2

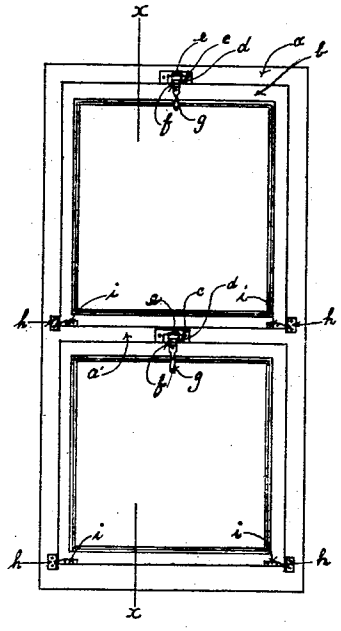


FIG. 3

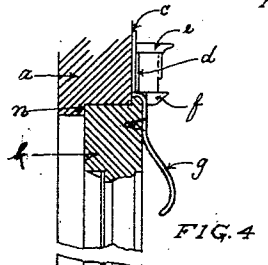


FIG. 4

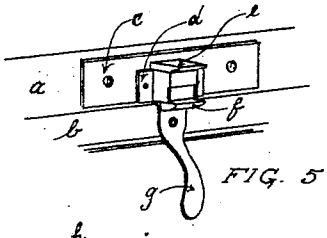


FIG. 5

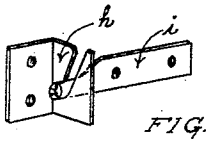


FIG. 6

WITNESSES

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COMBINATION STORM AND SCREEN WINDOW.

SPECIFICATION forming part of Letters Patent No. 710,661, dated October 7, 1902.

Application filed March 5, 1902. Serial No. 96,803. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. BERGER, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in a Combined Storm and Screen Window; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to an improvement in combined storm-windows and screens; and it consists in certain peculiarities of construction and combination of parts, to be fully set forth hereinafter with reference to the accompanying drawings and subsequently claimed.

On the drawings, Figure 1 is a vertical sectional view on line x x of Fig. 3. Fig. 2 is a front elevation of the outside of a window, showing my improvement in place on the window-frame. Fig. 3 is an inside view of the same. Fig. 4 is an enlarged fragmental detail sectional view on line x x of Fig. 3. Fig. 5 is a detail perspective view of the locking device of my improvements, and Fig. 6 is a detail perspective view showing one of the hooks and pins with which I secure my removable frames.

The object of my invention is to provide a construction for windows by which storm-windows and fly-screens may be interchangeably used on the same framework and which can be readily operated and detached from the inside of the windows for the purpose of cleaning and without risk to the operation or of the window falling outside.

In the drawings, a represents a rectangular frame, which closely fits into the portion of the window-frame, coming flush with the outside of the casing. The frame a can be formed on the window-frame when the latter is built, or it can, as shown, be made separate from the window-frame and be confined between the outer beading of the window and the turn-buttons m and m or other convenient fastenings secured to the window-frame. The frame a is preferably constructed with a cross-bar a' at the level of the meeting-rails of the window-sash and an outer shoulder n, against which the frame b abuts.

b represents the frame of a storm-window or a fly-screen, as the case may be, which is removably secured to the inner side of frame a, there being preferably an upper and a lower sash, which together fill the window-opening. The frame b consists of a rectangular frame having glass or other water and wind proof material secured therein, or it may consist of a rectangular frame having secured to its outer face a piece of wire-netting.

The frame b is secured to the supplemental frame a by means of pins i and i, which are secured to the inner surface of its lower right and left hand corners of the frame b by means of screws and a corresponding number of hooks h and h, which are secured to the inner surface of the frame a by means of screws, whereby the frame b is hinged at its lower corners to the inner side of frame a, allowing its upper portion to be oscillated back and forth.

The frame b is held in place by means of a lock, as shown in Fig. 5, which is composed of a plate secured to the frame a, and having secured in its center a guard-plate d, forming a square-box casing, through which reciprocates a gravity-catch e. Secured to the frame b and directly beneath the said lock is a handle g, which extends a predetermined distance above the former for engagement with the gravity-catch e, the gravity-catch e being beveled on its outer edge at f to admit of its being reciprocated by the handle g when the window or screen is to be closed without manual operation of the lock.

To operate my invention, press up the gravity-catch e with the thumb, which will free the handle g and at the same time grasp the handle g and pull inwardly. In this manner the frame b is brought free of the frame a, and the former may be lifted from its support at will. By this device it will be readily seen that storm-windows and screens may be easily and handily detached at will from the inside of the house, when so desired, for the purpose of cleaning or for the purpose of interchanging the same.

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

1. In combination with a window-frame, a frame that is adapted to be removed at will and a second frame that is adapted to be removably secured to the latter, hooks fixedly secured to the former removable frame and

pins secured to the latter for engagement with the said hooks whereby the latter is removably hinged at its lower extremity to the former removable frame, a gravity-catch secured to the former removable frame above the latter frame, a handle attached to the latter removable frame at its upper extremity for engagement with said gravity-catch substantially as and for the purpose set forth.

2. The combination of a window-frame having a removable frame within a removable frame, pins secured to the two lower inside corners of the inside frame, hooks secured to the inside frame for engagement with said pins, a handle secured to the upper inside surface of the inside frame, a gravity-catch secured to the middle frame for engagement with said handle whereby the inside frame opens inwardly substantially as and for the purpose set forth.

3. The combination of a window-frame a supplemental frame that is adapted to be secured therein, a frame *b*, removably hinged to the latter, a gravity-catch secured to said supplemental frame and a handle secured to frame *b*, for engagement with said catch whereby the frame *b*, is locked to the supplemental frame substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

CHARLES W. BERGER.

Witnesses:
EDWARD K. KIESSLICH,
JAS. A. RIGBY.