(No Model.) 3 Sheets—Sheet 1.

H. HARRISON.

VENTILATING WINDOW.

No. 451,003. Patented Apr. 21, 1891.

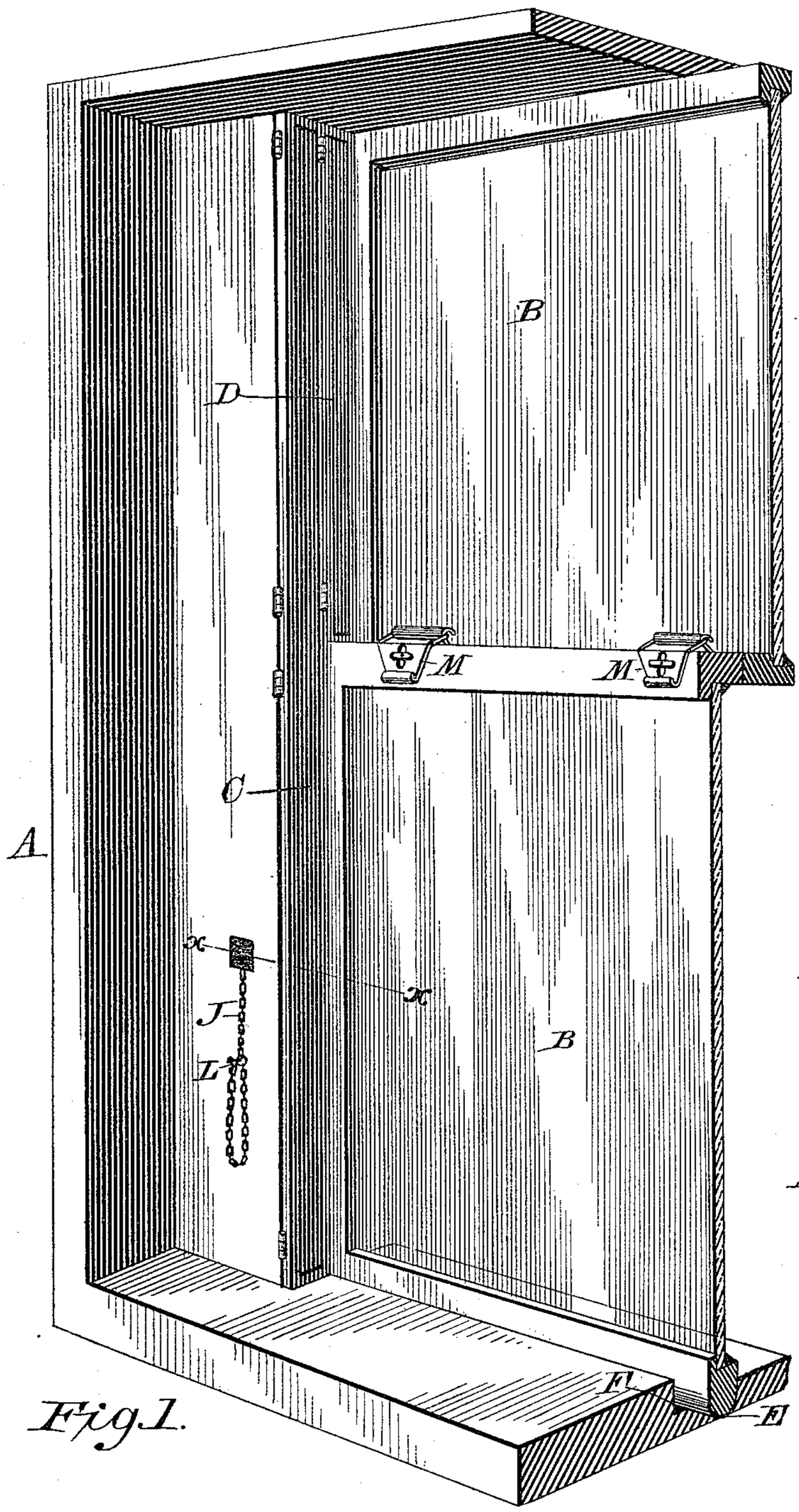

Fig. 1.

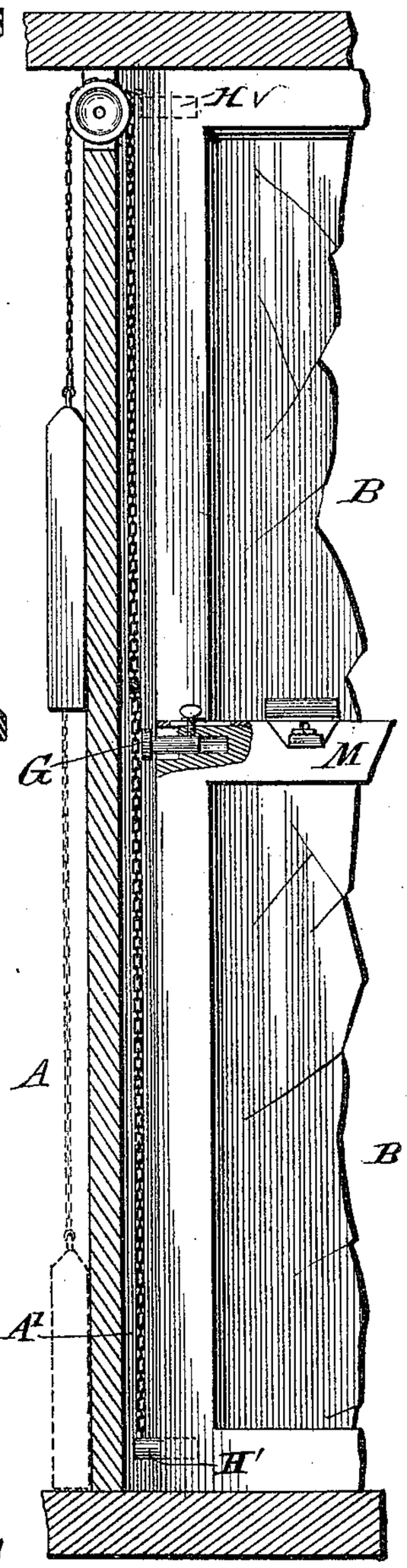

Fig. 2.

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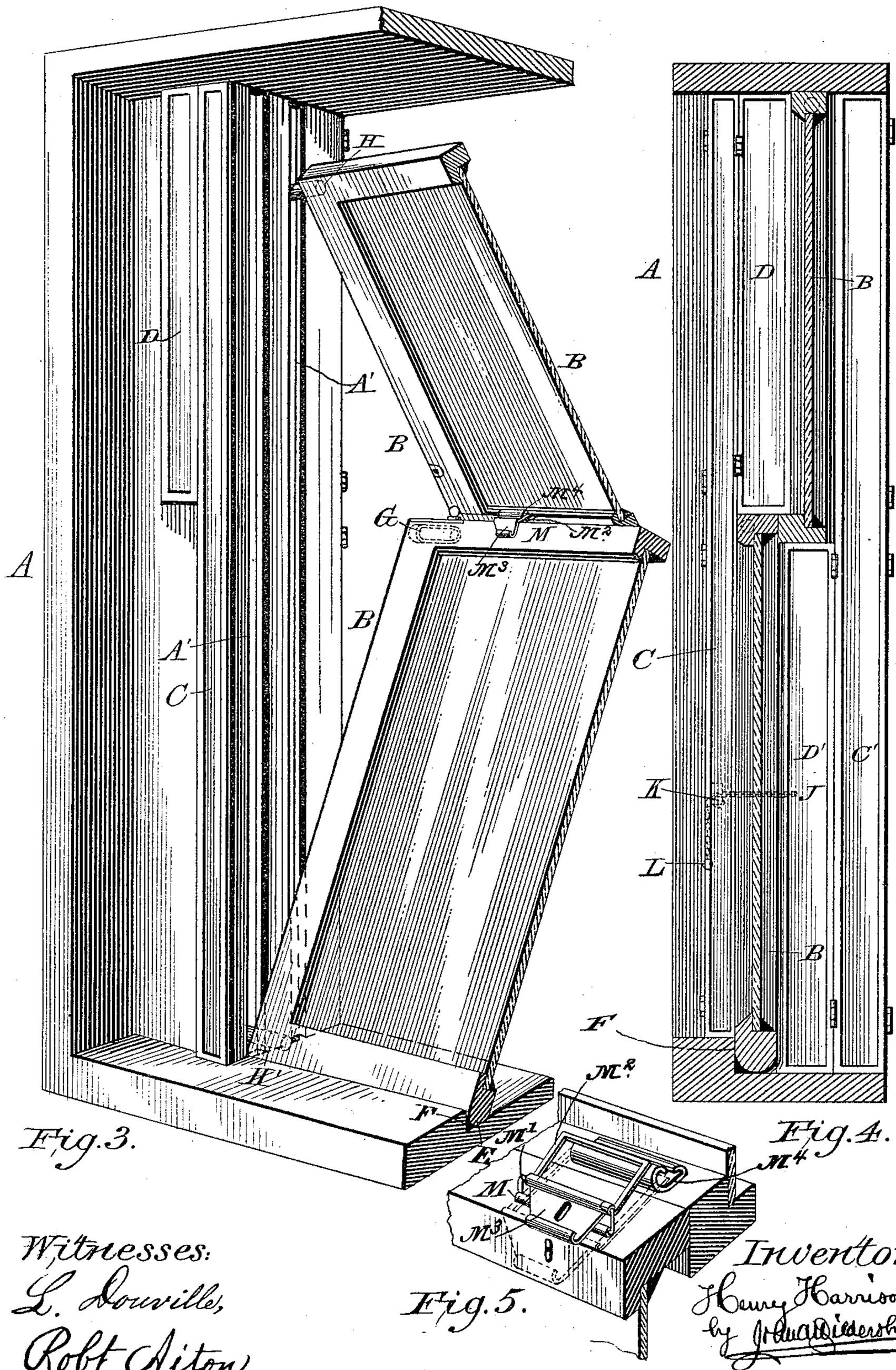

Fig. 3.

Fig. 4.

Fig. 5.

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(No Model.) 3 Sheets—Sheet 3.

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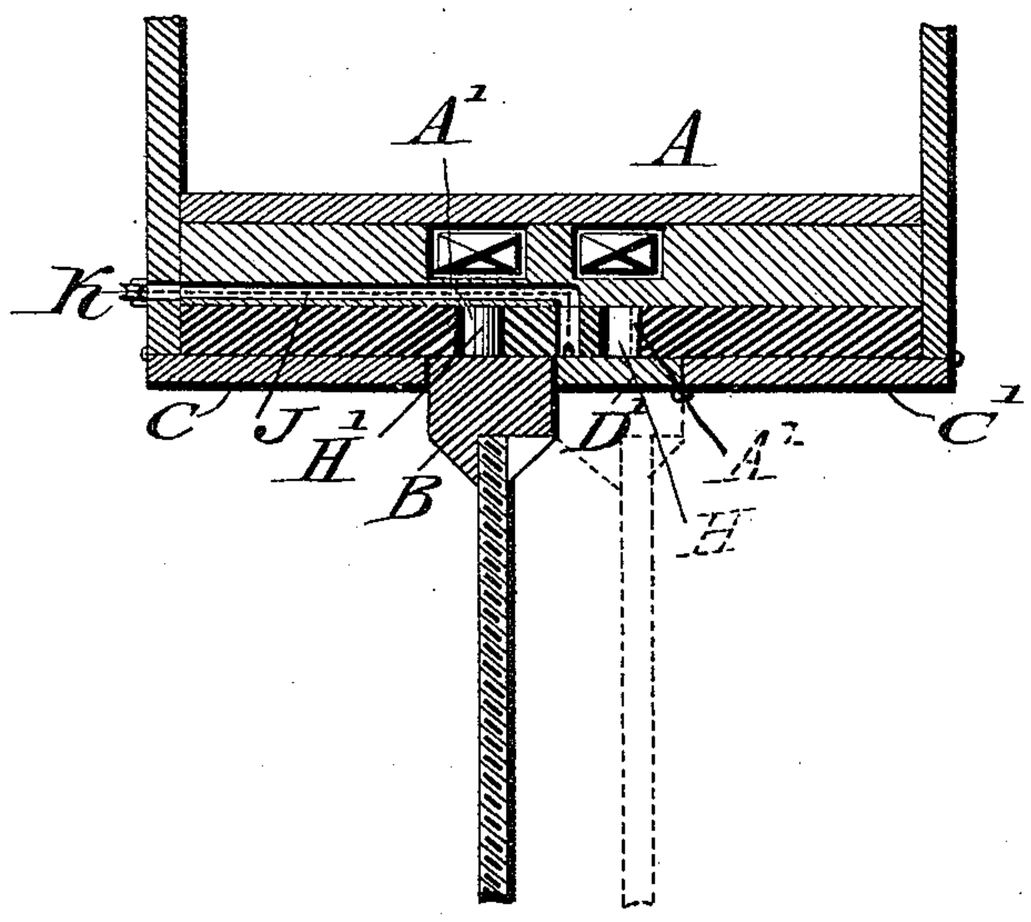
Fig. 6.



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UNITED STATES PATENT OFFICE.

HENRY HARRISON, OF PHILADELPHIA, PENNSYLVANIA.

VENTILATING-WINDOW.

SPECIFICATION forming part of Letters Patent No. 451,003, dated April 21, 1891.

Application filed May 31, 1890. Serial No. 353,856. (No model.)

To all whom it may concern:

Be it known that I, HENRY HARRISON, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Ventilating-Windows, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of window-sashes adapted to be placed in angular or inclined positions, so as to serve as ventilators, the same being adapted to be raised and lowered as usual.

It also consists of means for locking the sashes, as will be hereinafter fully set forth.

Figures 1 and 3 represent perspective views of a portion of a ventilating-window embodying my invention, the sashes being shown in different positions. Fig. 2 represents a partial vertical section and partial face view of a portion of a window, embodying my invention. Fig. 4 represents a transverse section thereof. Fig. 5 represents a perspective view of the fastening device at the meeting-rails. Fig. 6 represents a horizontal section of a portion on line *x x*, Fig. 1, on an enlarged scale.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a window-frame, which, excepting the features of my invention applied thereto, is of usual construction.

B designates the window-sashes, which are provided with sash cords or chains and weights, so as to be raised and lowered, as usual.

C C′ designate the side beads of the window-frame, extending the length thereof, the same being hinged to said frame, so as to be moved or swung to and from the sides of the window-sashes, it being noticed that said beads have additional or shorter beads D D′ hinged to them, the bead D being at the upper portion of the bead C, so as to close against the upper sash and cover the space between the bead C and said upper sash. The bead D′ is at the lower portion of the bead C′, so as to close against the lower sash, and cover the space between the bead C′ and said lower sash, all as will be seen in Fig. 4. The lower sash has its bottom rail rounded, as at E, and resting freely on the sill against the shoulder F, whereby said sash may turn on said sill as a fulcrum, when so required.

Projecting horizontally from each of the sides of the sash-frames are gudgeons G H H′, the gudgeon G having a sliding movement, and all of said gudgeons entering the grooves A′ on the inner sides of the window-frame play therein as the sashes are raised or lowered, thus guiding said sashes in their motions and preventing outward and inward displacement thereof, it being noticed that the sash-cords are attached to the gudgeons H H′. The beads D′, which are on the outside, have connected with them chains or cords J, which pass through the sides of the window-frame, and are accessible on the inside of the frame, where they are guided over rollers K, and have rings on their ends, the same being adapted to be fitted or hung on a hook or nail L, thus preventing the opening of the beads D′ and C′ from the outside.

Connected with the meeting-rails of the sashes are the parts of catches or fasteners M, which may be disconnected, so that the sashes may be raised or lowered when so required, as in ordinary sashes. In this case when the lower sash is to be raised, the bead D is to be swung open out of the way of the same. When the upper sash is to be lowered, the bead D′ is swung open out of the way. When the sashes are closed, they are locked or secured by said catches, the latter being formed of jointed loops M′ and M^2, a locking tongue M^3, and a hook or ear M^4, with which one of the loops engages, as plainly shown in Fig. 5. It will be seen that loop M′ allows loop M^2, to which it is movably connected, to be extended over to engage with the hook or ear M^4, said loop M′ producing a drawing action on the loop M^2 when the tongue M^3 is locked down.

When it is desired to ventilate the room, the chains or cords J are released from the inner side of frame, whereby the beads D′ C′ are then free to swing outwardly by being moved by hand, and owing to the fact that they would not then be secured said movement would be permissible. It will be understood, however, that the inner beads C D are first thrown back, thereby allowing the lower sash to be raised in order to give access to

the outside beads C′ D′ to open the same. After the inner beads C D are opened the gudgeon G on each side is drawn back out of its groove and the sashes pushed outwardly, the lower sash turning on the sill, and the upper sash as it is lowered turns on the gudgeons H as it assumes an oblique or inclined position. The gudgeons H H′ prevent disconnection of the sashes from the window-frame by the walls of the grooves in which they move without interfering with the swinging motions of said sashes, it being noticed that the sashes are pivotally connected at their meeting-rails by the catches M on said rails. The sashes are now in partly-open position, (illustrated in Fig. 3,) and are sustained in said position by the chains or cords and weights in a manner similar as when said sashes are ordinarily raised and lowered. The two sashes connected at their meeting-rails by the catches M in a manner before referred to and permitted by the jointed construction of the said catches, so that the room or apartment may be fully ventilated by the sashes without raising the lower sash or materially lowering the upper sash, it being evident that the lower sash may be raised while in inclined position, if desired. When the sashes are restored to their normal positions, the beads D′ C′ may be drawn in by means of the chains or cords J, and the beads C D are swung toward the sashes, the several beads thus being in closed position. The bead C when closed holds the lower sash against lateral movement, and the bead D when closed prevents the lower sash from being raised by fitting over the upper edge thereof. The beads C′ D′ have a like function exterior of the sash, the bead D′ preventing lowering of the upper sash and outward lateral movement of the lower sash, and the bead C′ guarding against lateral outward movement of the upper sash. The outer bead may now be secured or locked from within by means of the cords and chains J and the hooks or nails L.

The beads may be swung entirely back on the window-frame, or partly so, as shown, respectively, in Figs. 3 and 6; but in either case the distance must be sufficient to clear the sides of the window-sashes when the latter are to be swung out.

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

1. A window-frame having grooves in its sides, window-sashes having a pivotal connecting-catch, and gudgeons on their sides adapted to enter said grooves, in combination with beads hinged to said frame, each bead having an additional bead hinged thereto, substantially as described.

2. A window-frame having grooves in its sides, window-sashes having a catch pivotally connecting the same at their meeting-rails, and gudgeons entering said grooves, part of said gudgeons having sash-cords connected therewith and another part being movable, so as to be capable of withdrawal from the grooves, in combination with hinged beads on said frame and additional beads hinged to the former beads, substantially as described.

3. The combination of a frame having hinged stops or beads, each bead having an additional bead hinged thereto, and a lower shoulder with window-sashes having pivotal connection and provided with side gudgeons, the lower sash having a rounded lower edge, substantially as and for the purpose set forth.

4. In a ventilating-window, side beads hinged to the window-frame, in combination with additional or shorter beads hinged to the first-named beads, substantially as described.

5. A frame with inside and outside swinging beads or stops, window-sashes with gudgeons, said window-sashes being pivotally connected and said frame having a transverse opening, a roller, and a chain, the latter being connected with the outside stops and passing through said opening, said parts being combined substantially as described.

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WM. C. WIEDERSHEIM.