(30.) 2 Sheets--Sheet 1.

M. M. ELLIS.

Improvement in Window Casing and Sash.

No. 122,239. Patented Dec. 26, 1871.

FIG. 1

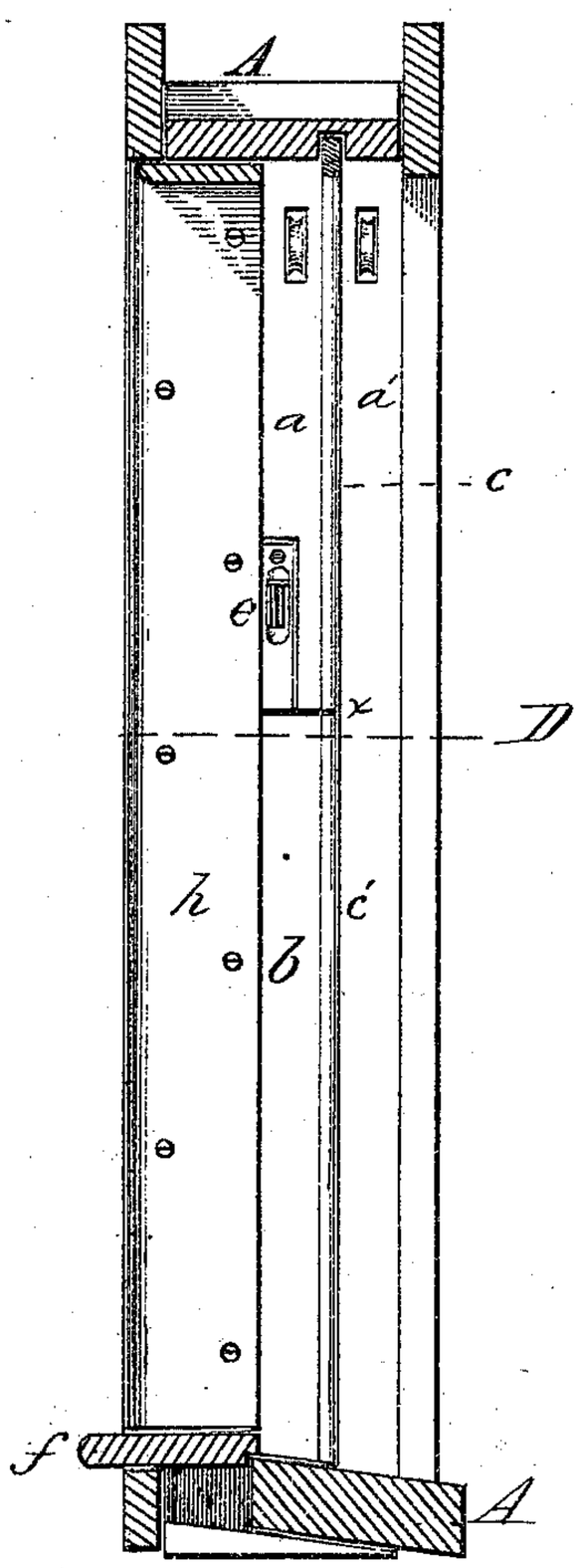
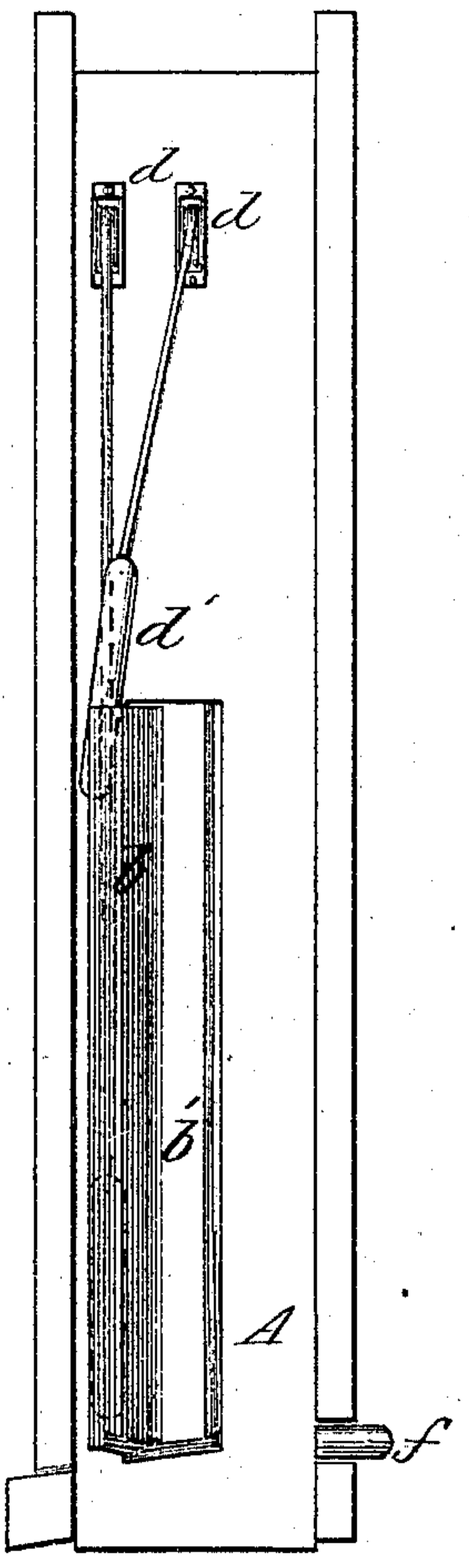


FIG. 2



Witnesses,
C. E. Howard
C. Eugene Buckland.

Marshall M. Ellis,
Inventor,
By C. A. Coates
his attorney.

(30.)

2 Sheets--Sheet 2.

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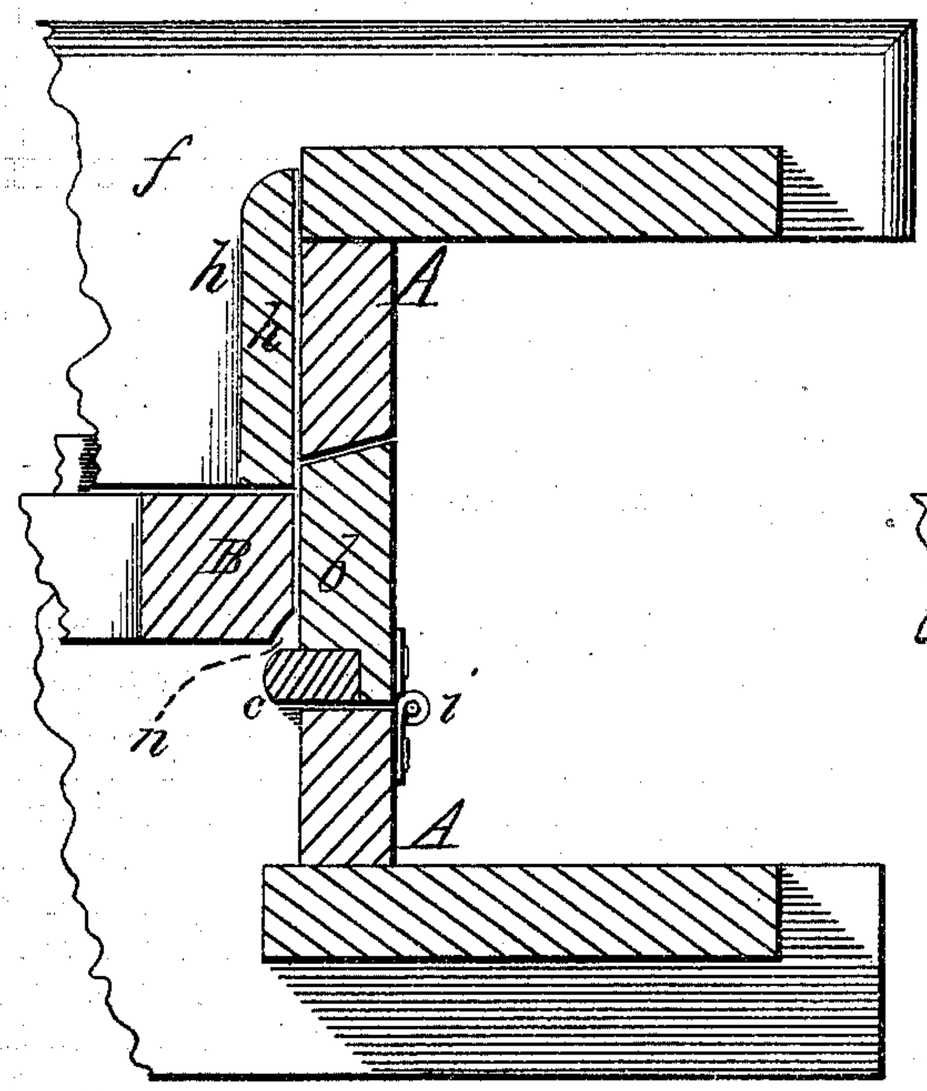

FIG. 3

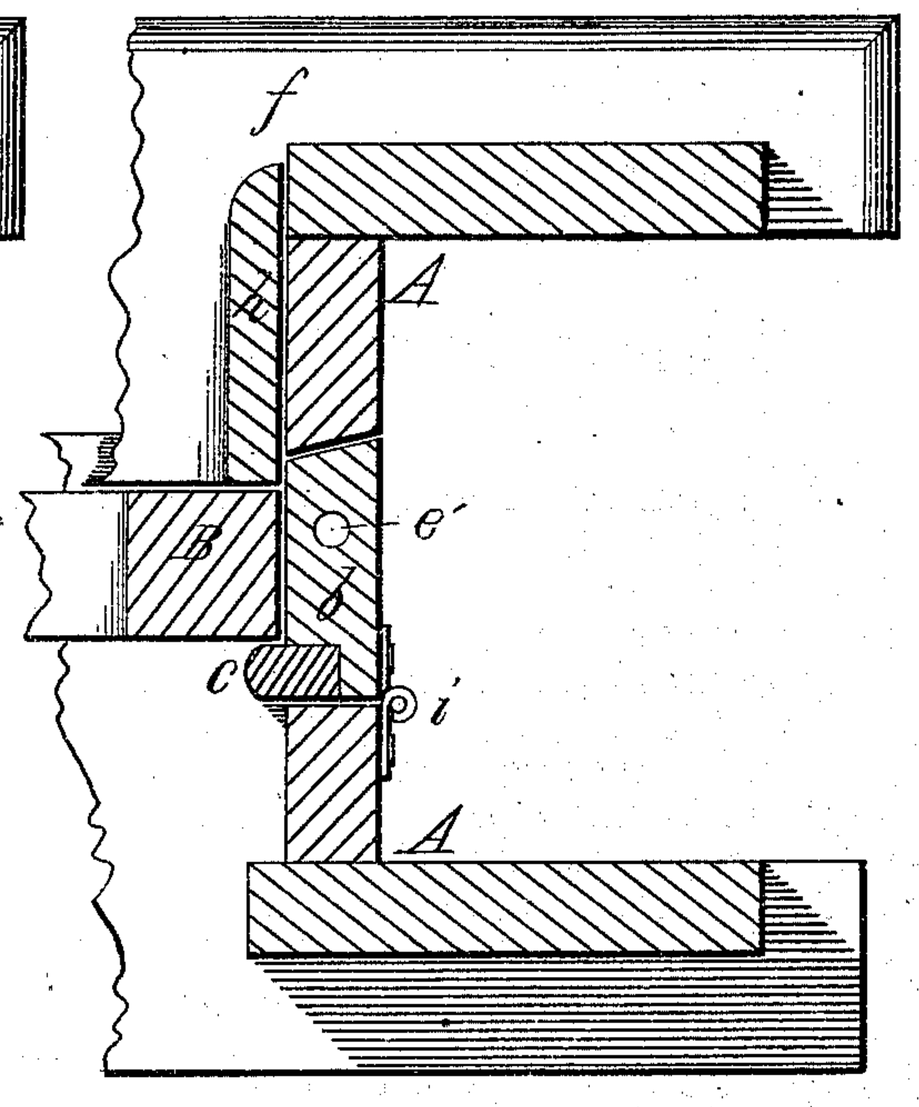

FIG. 4

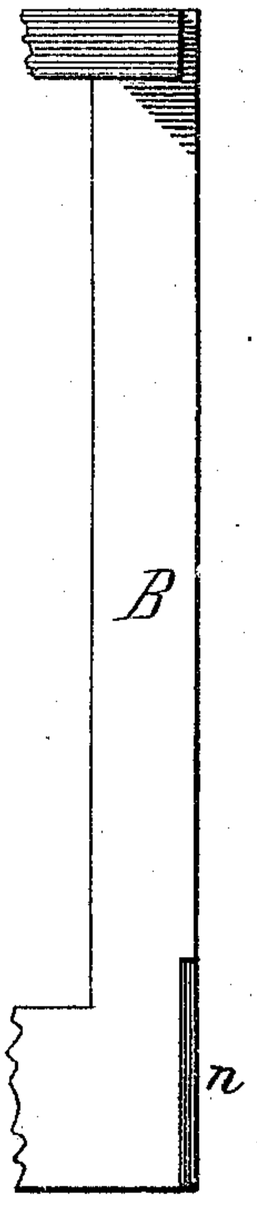

FIG. 5

Witnesses—

C. G. Howard

C. Eugene Buckland.

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Inventor.

By F. A. Curtis.

his Attorney.

UNITED STATES PATENT OFFICE.

MARSHALL M. ELLIS, OF SPRINGFIELD, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND FREDERICK R. LADD, OF SAME PLACE.

IMPROVEMENT IN WINDOW CASINGS AND SASHES.

Specification forming part of Letters Patent No. 122,239, dated December 26, 1871.

To all whom it may concern:

Be it known that I, MARSHALL M. ELLIS, of Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in Window Casing and Sash; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification and to the letters of reference marked thereon, in which—

Figure 1, Plate 1, is a vertical section, showing inside view of the casing with the sash removed. Fig. 2 is a side view of outside of casing. Fig. 3, Plate 2, is a horizontal section through line D of Fig. 1, showing casing with lower sash raised. Fig. 4 is a horizontal section through line D of Fig. 1, showing casing with lower sash in place; and Fig. 5 is a front view of a portion of the lower sash, showing a portion removed for the purpose of allowing the hinged portion of the casing to swing.

My invention relates to the construction of a window-casing and its sash, whereby the sash may be easily removed when occasion requires; and it consists in making the casing in the ordinary manner, having the parting-bead, which separates the sashes, inserted as usual, making the two ordinary sash-ways. The inside stop, however, may be permanently secured to the casing, and that part of the casing which forms the lower sash-way upon one side is cut out, with, also, a portion of the parting-bead, and the casing and parting-bead so removed, and which are of the same length, are then secured together and hinged upon one side of the opening, so that it may be opened outward into the casing and closed again like a door. A small portion of the corner of the sash, at the lower end, is cut away, so that when the lower sash is raised the hinged part of the casing may swing freely upon its hinges; otherwise that portion of the parting-bead which is attached to the hinged piece would strike against the sash and it would be held closed.

That others skilled in the art may be able to make and use my invention, I will proceed to describe its construction and operation.

In the drawing, A represents the window-casing, which, in its general form of inside stop *h*, parting-bead *c*, and sash-ways *a* and *a'*, is the same as that commonly used. The lower part of the lower sash-way *a*, however, is removed by cutting down each side of said sash-way, and by cutting across at any convenient point, as at *x*, and also at *x'*, at the lower part of the sash-way. The part thus removed includes the parting-bead, and may be of any length desirable, provided it is longer than the height of either sash. The parts so removed are then secured together and are hinged to the back side of the casing, as shown at *i* in Figs. 3 and 4, so that when swung upon its hinges and closed the aperture is filled again, the part *b* forming a continuous portion of the sash-way and the part *c'* forming a continuous portion of the parting-bead. The part *b* may be secured closed by means of a bolt or catch, *e*, inserted in the sash-way *a* just above the part *b*. In order that the strip *c'*, attached to the part *b*, may swing freely upon the sash B when the sash is thrown up, a small portion of the side corner of said sash at the lower end is cut away, as shown at *n* in Figs. 3 and 5, the position of both the lower sash B and the hinged piece *b* and its strip *c'* being clearly shown in Fig. 3. The sash-cord and weights are so arranged that when the lower sash B is down its weight does not pass above the top of the hinged part *b*, so that when said part *b* is pushed open the weight will be forced behind the door, as shown in Fig. 2.

To remove the sash, the lower one B is thrown up to its highest position when the door or part *b* may be pushed open, the strip *c'* swinging past the recess *n*. After the part *b* is opened the sash B is then drawn down, when one side of it may be forced out through the aperture *b'*, and the other side is then drawn out and the whole sash removed. The upper sash being then drawn down is easily pulled forward into the sash-way of the lower sash B and is then easily removed.

It will be seen by reference to Fig. 4 that when the sash B is down in its accustomed place when closed the piece *b* is kept closed and cannot be opened until the sash is raised, because the strip *c'* strikes against the sash; so that, for ordinary use, no catch or bolt *e* may be required, as the sash itself locks the piece *b* in a closed position until the top of the recess *n* is raised to a position just above the top of the piece *b*.

When windows have this invention applied the stops *h* may be permanently secured to the casing, and any one can easily remove the sash without

the least injury to the casing or any part of the wood-work or paint, and much more conveniently and quickly than when made in the ordinary manner.

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

In a window-casing and sash the combination of the hinged piece *b* with its strip *c'* thereon, the aperture *b''*, and the recess *n* upon the lower sash, all constructed and operating substantially as and for the purpose described.

MARSHALL M. ELLIS.

Witnesses:
T. A. CURTIS,
CLARENCE BUCKLAND. (30)