

2. Sheets. Sheet 1.  
W. K. Thomas,

Shutter.

No. 104,228.

Patented June 14, 1870.

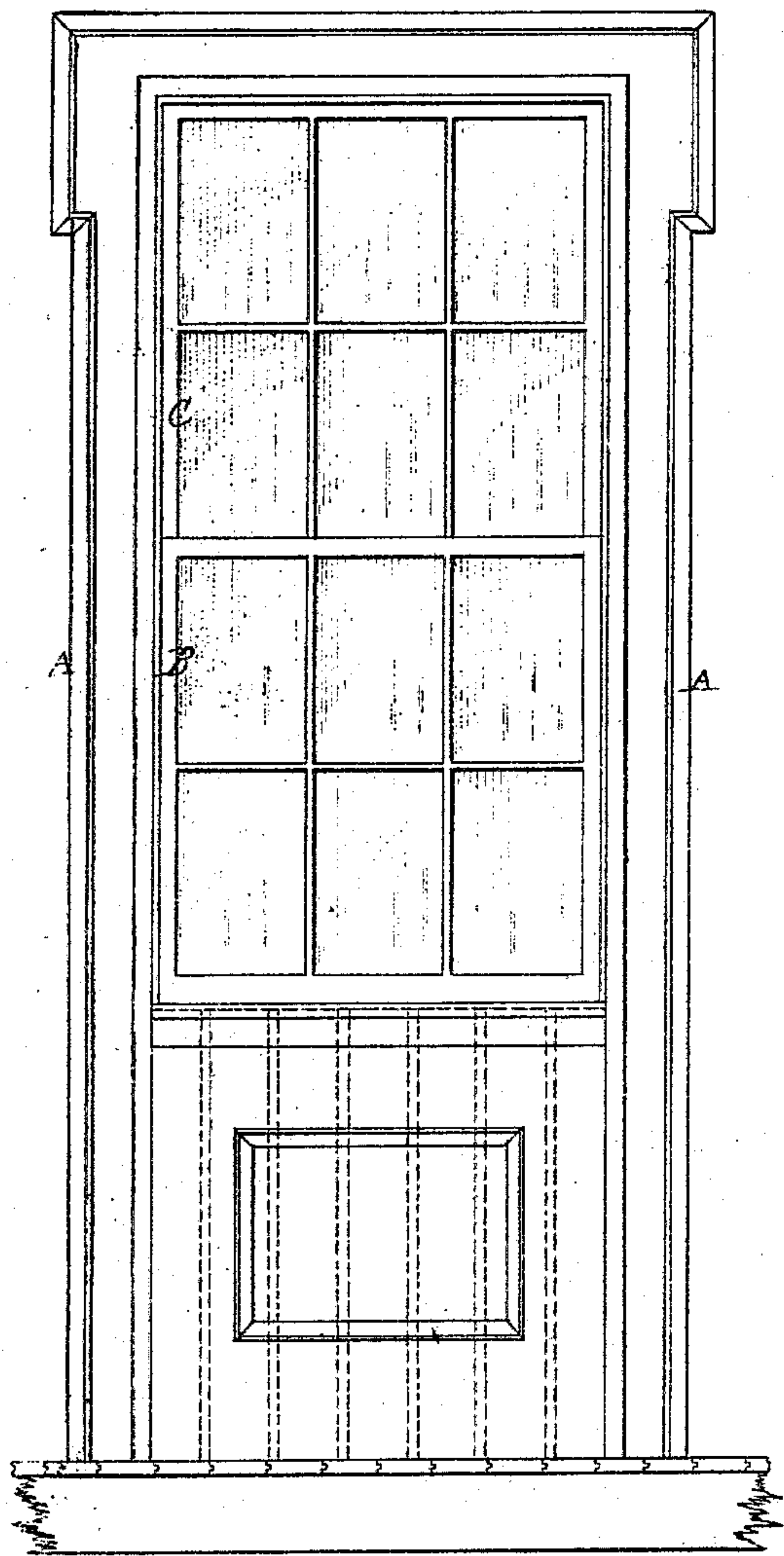
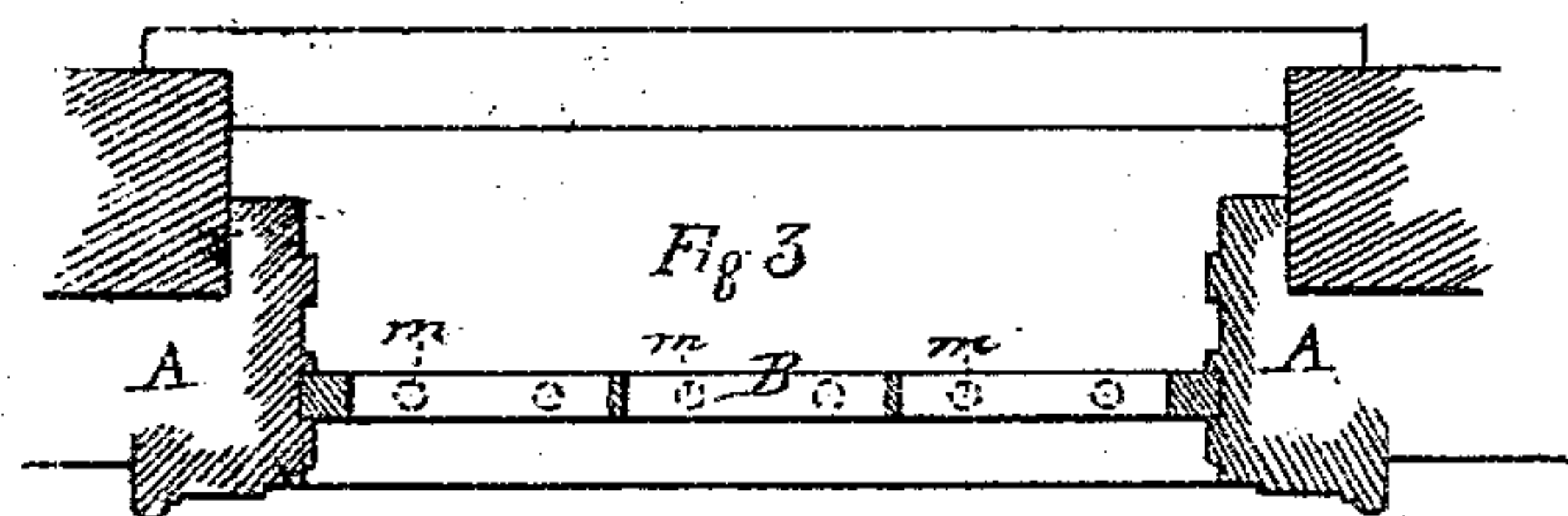


Fig 1

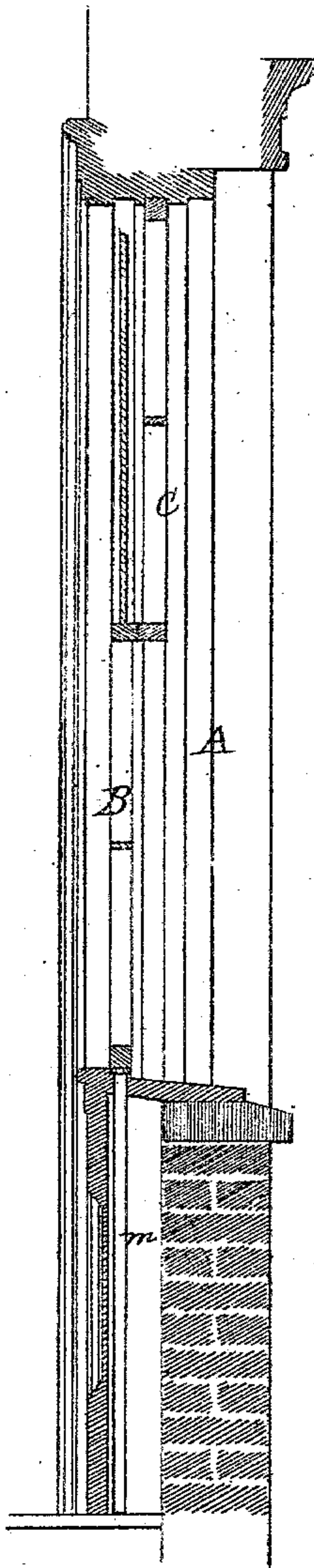


Fig 2

Witnesses

J. L. Livings  
J. C. [Signature]

Inventor

W. K. Thomas  
By his attorney  
J. B. [Signature]

W. K. Thomas, 2. Sheets. Sheet. 2

Shutter.

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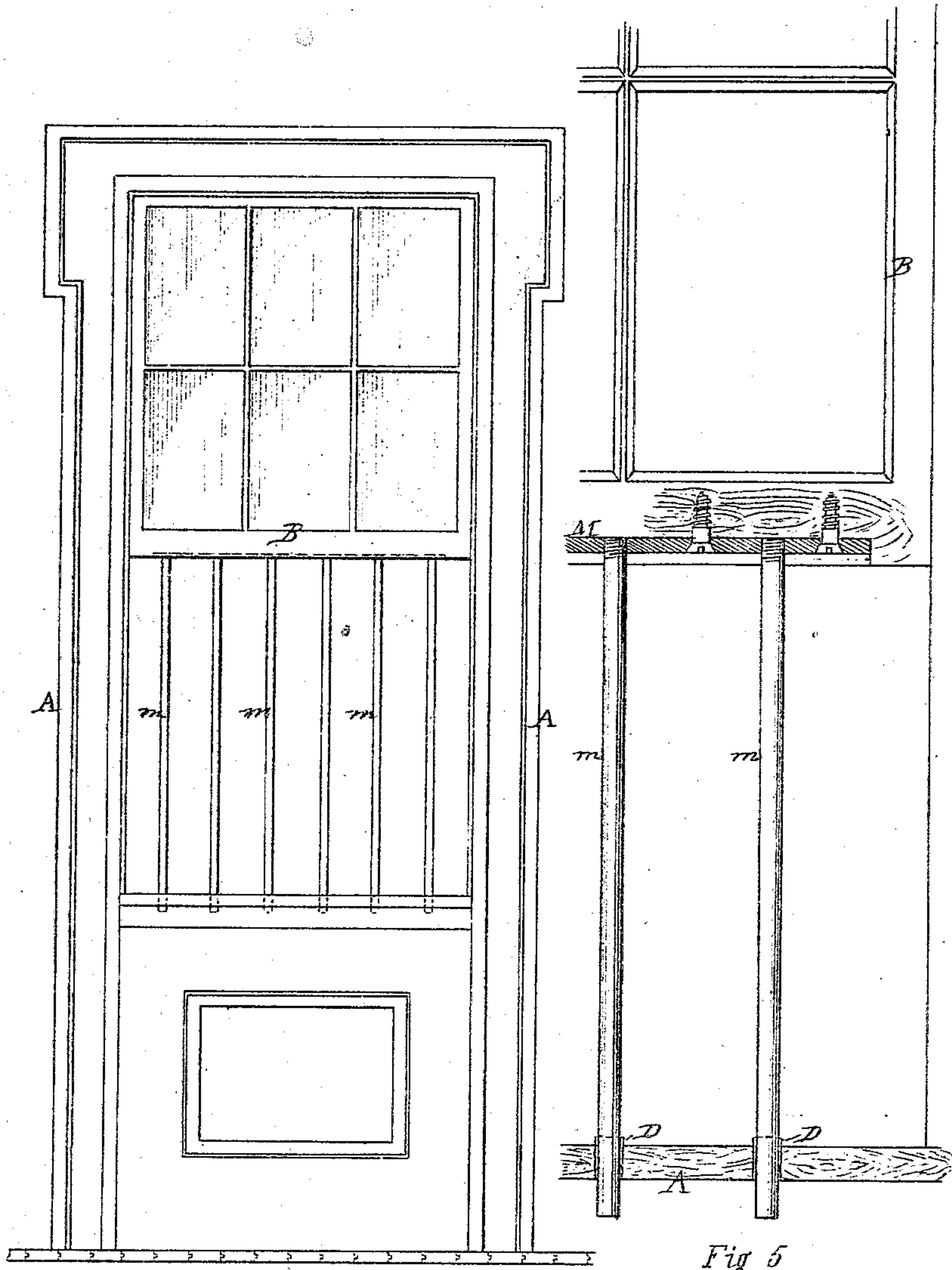


Fig 4

Fig 5

Witnesses

C. C. Livings  
J. C. Dey

Inventor

W. K. Thomas  
by their attorney  
J. L. Sutton



# United States Patent Office.

WILLIAM K. THOMAS, OF BROOKLYN, NEW YORK, ASSIGNOR TO HIMSELF  
AND W. E. HILL, OF SAME PLACE.

Letters Patent No. 104,228, dated June 14, 1870.

## IMPROVEMENT IN WINDOW-GUARDS.

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, WILLIAM K. THOMAS, of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Window-Guards, by which I mean provisions for guarding both against the entrance of persons from without, and the falling out of children or other persons, or bulky articles, from within.

The following is a full and exact description of the means or method in which I prefer to carry out my invention.

The accompanying drawing forms a part of this specification.

Figure 1 is a view of the window from the inside of the building when the sash is lowered. In this figure my invention does not appear, except in dotted lines. The window when closed may present its ordinary appearance, both from the inside and outside.

Figure 2 is a central vertical section through the window with the sash closed, or, in other words, it corresponds with the view in fig. 1.

Figure 3 is a horizontal section.

The remaining figures show the invention in use. In this the window-sash is raised, and the guard, which was before concealed and out of the way, becomes now efficient to perform its useful function of guarding the open portion of the window:

Figure 5 represents a portion of the window-sash and frame with my guard on a larger scale.

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

A is the window-frame and connected parts, forming portions of the fixed material of the building;

B is the lower sash; and

C, the upper sash of the window. They are supported by cords and weights, and all parts so far as are yet described, may be of suitable or ordinary construction.

A series of parallel or upright bars, *m m*, which may be by preference hollow tubes of iron, tinned, or otherwise protected against oxidation, is connected at the top to the cross-bar M, which is let into the lower edge of the sash B, and is secured so as to be moved up and down therewith, the uprights *m* playing through holes in the bottom of the window-case. The space thus made for the bars *m* must continue down to a sufficient depth to allow the sash to sink to its seat.

I make the holes in the lower part of the window-sash a little larger than the bars *m*, and drive in or otherwise fix therein thimbles D, which, holding their upper edges above the upper surface, prevent the entrance of water, except the very small quantity which may strike the bars and run down. Of course, in wet weather, the window will be closed.

I can make the coamings thus provided by the thimbles D of very little height, as represented, and they will, in such case, involve no serious disadvan-

tage, by holding the window-sash B a little up from its ordinary seat, but I prefer to provide a space for this coaming or thimble to extend up into the sash; this may be done by recessing M around the junction of the rods *m*, or, as I prefer in practice, the entire bar M may be let up into the window-sash to a sufficient height, as represented in fig. 5.

I have represented the bar M as secured by ordinary wood-screws; these allow of convenient removal by an ordinary screw-driver to allow for cleaning the window, or for repairs.

I propose to substitute any ordinary or suitable means for detaching this bar M, and consequently for lowering the window-guard, so that it will be out of the way. One or more spring clips, bolts, keys, or the like may serve. I would prefer a very strong and efficient fastening for the lower stories, as a better safeguard against the entrance of unauthorized parties from without, and a quickly detachable fastening may be preferable for the windows for the other floors.

The bars *m* may be attached to the bar M by welding, casting in one piece, brazing with hard solder, or any other approved manner. I prefer for some reasons tapping the pipes *m* into the bar M and then brazing.

The benefit of my invention cannot be realized by adopting other forms than the parallel bars *m* here described. Any grating, netting, or the like allowed to sink through the base of the window-frame, or even to be folded, rolled, or otherwise compacted on the surface thereon, so long as it is attached to the sash B, and caused to rise and sink therewith, would be a self-removing guard, but such could not rise and sink through small and close-fitted holes like mine. I prefer the construction represented with the thimbles D, or their equivalents to guard the several holes as represented.

I propose, where the masonry will not allow the bars to sink to the proper depth, to construct them in two or more lengths, united in the manner known as telescopic tubes.

I claim as new, and as my invention—

1. The within-described window-guard, composed of parallel bars *m* attached to the window-sash and rising and sinking through the corresponding series of close-fitting holes when the window is opened and closed, substantially as and for the purposes herein set forth.

2. The thimbles or coamings D, arranged relatively to the parallel bars *m*, and to the window-casing and movable sash therein, substantially in the manner and for the purposes herein set forth.

In testimony whereof I have hereunto set my name in presence of two subscribing witnesses.

Witnesses:

WM. C. DEX,

A. HOERMANN.

W. K. THOMAS.