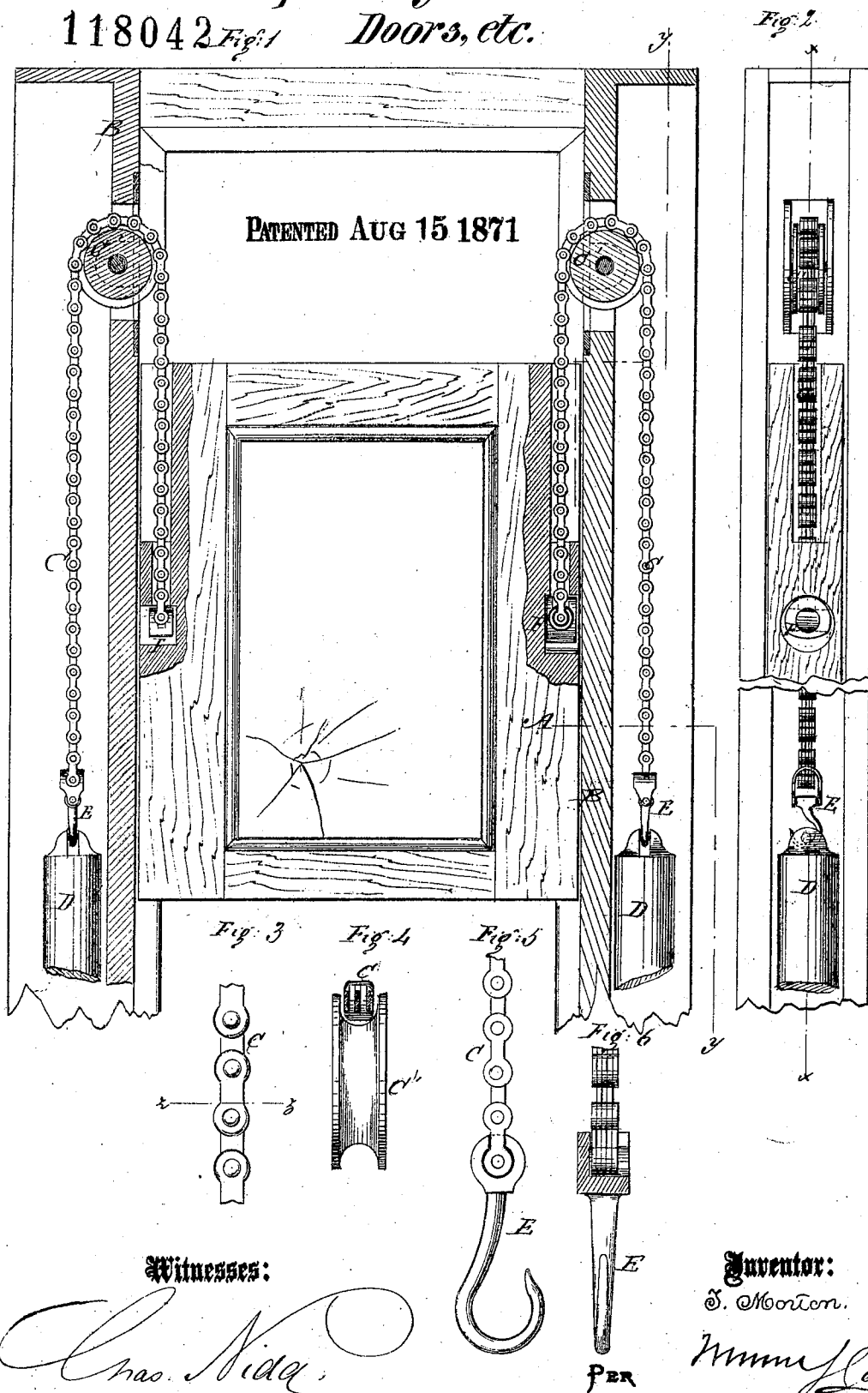


*T. Morton's Suspending Window Sashes,*  
 118042 *Fig: 1 Doors, etc.*



Witnesses:

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# UNITED STATES PATENT OFFICE.

THOMAS MORTON, OF NEW YORK, N. Y.

## IMPROVEMENT IN DEVICES FOR SUSPENDING WINDOW-SASHES.

Specification forming part of Letters Patent No. 118,042, dated August 15, 1871.

*To all whom it may concern:*

Be it known that I, THOMAS MORTON, of the city, county, and State of New York, have invented a new and useful Improvement in Suspending Window-Sashes, Doors, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

My invention consists in constructing the hook of a sash or other chain so that the chain may be secured at any joint, as hereinafter fully described and subsequently pointed out in the claim.

In the accompanying drawing, Figure 1 represents a sectional elevation of a window with the sash suspended according to my invention, the section being taken on the line *xx* of Fig. 2. Fig. 2 is a vertical section of Fig. 1 taken on the line *yy*. Fig. 3 is a section of the beveled chain, and Fig. 4 is a cross-section through it on the line *zz*, also showing a cross-section on the round-grooved pulley in which the chain runs. Fig. 5 represents a sectional view of the chain attached to the hook, and Fig. 6 is a sectional front view of the same.

Similar letters of reference indicate corresponding parts.

A is the sash; B, the window-frame. C is the chain; C', the chain-pulley; D, the weight. E is the weight-hook.

The chain is connected with the sash by means of a slotted tube or plate, or piece of metal, or other suitable material, placed in a recess or cavity at the end of the chain-groove, as seen at F, the said slotted tube, plate, or other fastening being so formed that the chain will slip with the slot and be held by the enlarged end of the link when the chain is cut to the required length. The shank of the weight-hook is constructed so as to

receive the chain by means of a slot, in a manner similar to that already described. This mode is seen in Fig. 5. The chain is thus slipped into a circular eye or semicircular shank, and may be held in any manner by the enlarged end of the link, as represented, and the attachment is complete. It will be seen that for connecting the chain either to the sash or the weight the chain is not drilled or altered in any manner. It is only cut to the required length, and is then ready to be connected. This is the main feature of my invention.

The advantages of my improvement are: that there is no labor required on the chain after it is cut to the required length, the attachment to the sash and to the weight-hook is made without riveting, clinching, or hammering of any sort; the end of the chain is simply slipped into a slot or held by the enlarged end of the link or chain, as before stated. When this connection is confined in the grooves of the sash or in the box of the frame it cannot be disconnected, as the link cannot be brought to the angle required for that purpose.

I do not confine myself exclusively to windows in the application of my improvement, as it is apparent that the same mode of attaching the chain may be applied to doors and other bodies suspended by means of weights and chains.

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

The hook E, constructed with the peculiarly-recessed slot described, and applicable to a link-chain in the manner specified.

THOMAS MORTON.

Witnesses:

T. B. MOSHER,  
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