No. 683,183. Patented Sept. 24, 1901.

J. P. W. PATILLO.

WINDOW.

(Application filed July 23, 1900.)

(No Model.) 2 Sheets—Sheet 1.

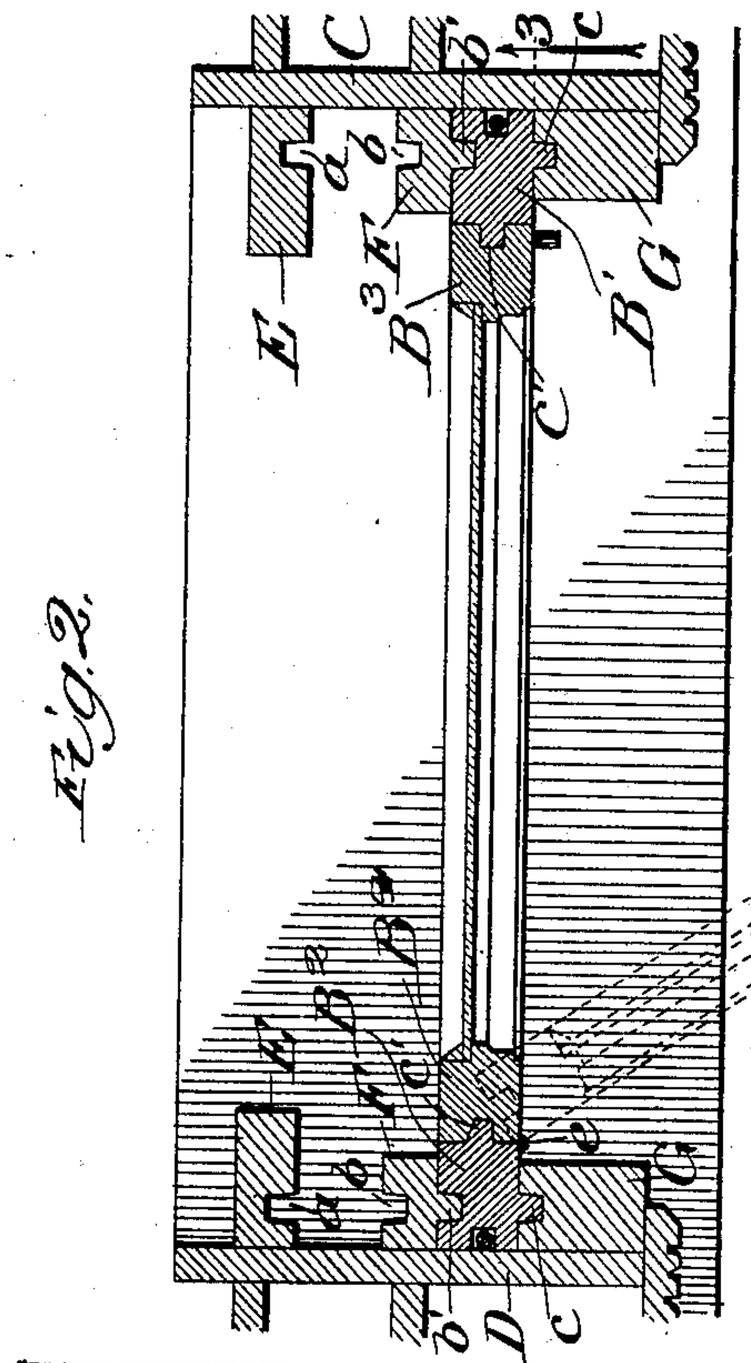

Fig. 2.

Fig. 1.

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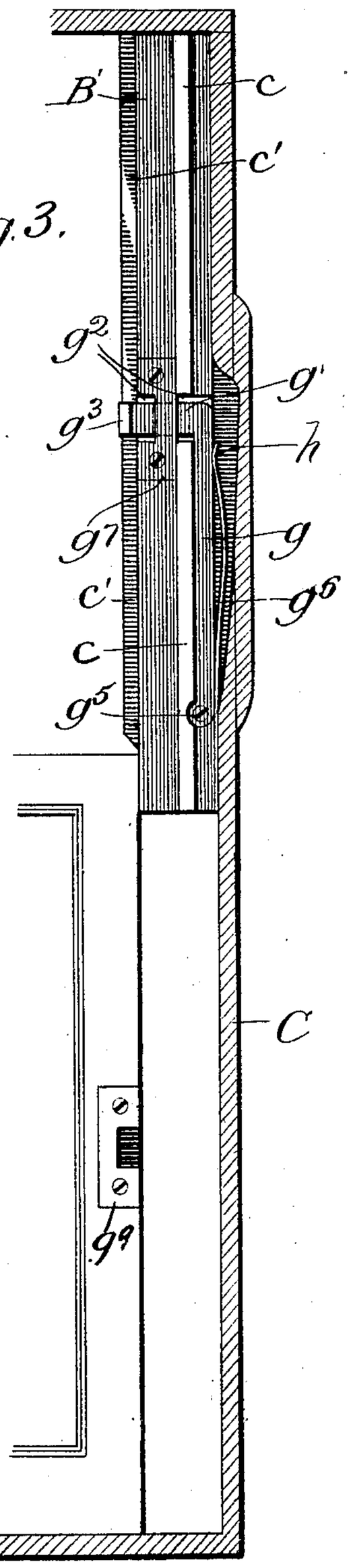

Fig. 3.

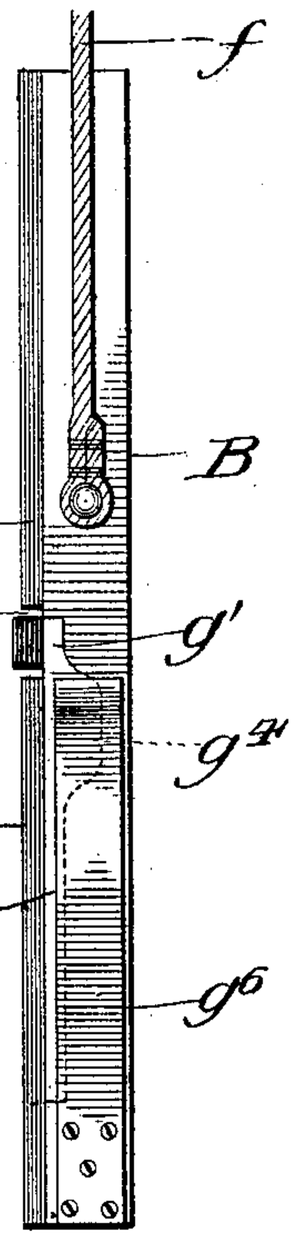

Fig. 4.

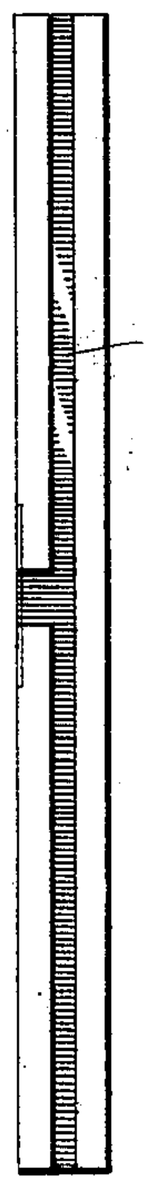

Fig. 5.

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UNITED STATES PATENT OFFICE.

JOHN P. W. PATILLO, OF CHICAGO, ILLINOIS.

WINDOW.

SPECIFICATION forming part of Letters Patent No. 683,183, dated September 24, 1901.

Application filed July 23, 1900. Serial No. 24,509. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. W. PATILLO, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Windows, of which the following is a specification.

My invention relates particularly to an improvement in swinging windows, my object being to provide a window of improved construction which shall be simple, cheap, durable, and effective.

I accomplish my purpose by means of certain improvements in the connections between sash and suspending stiles and between suspending-stiles and pulley-stiles, all as hereinafter fully described.

In the accompanying drawings, Figure 1 is a view in inner side elevation of a window embodying my improvements; Fig. 2, a plan section on line 2 of Fig. 1; Fig. 3, a broken vertical section of the right-hand portion of the window, the section being as indicated at line 3 of Fig. 2 and the upper sash being removed; Fig. 4, a view of one of the right-hand suspending-stiles, and Fig. 5 a right edge view of a sash.

A represents the upper sash; B, the lower sash; C, the right-hand pulley-stile; D, the left-hand pulley-stile; E E, the outer window-stops; F F, the center stops; G G, the inner stops; A′ and A^2, the right and left hand suspending-stiles, respectively, of the upper sash; B′ and B^2, the right and left hand suspending-stiles, respectively, of the lower sash; A^3 and A^4, the right and left sash-stiles, respectively, of the upper sash; and B^3 and B^4, the right and left sash-stiles, respectively, of the lower sash.

The stops E are provided at their faces adjacent to the suspending-stiles A′ A^2 with longitudinal grooves *a*. The stops F are provided at their faces adjacent to the same suspending-stiles with grooves *b* and at their faces adjacent to the suspending-stiles B′ B^2 with tongues *b*′. The suspending-stiles B′ B^2 are provided adjacent to the stops F with grooves for the tongues *b*′, adjacent to the stops G with tongues *c*, and adjacent to the sash-stiles B^3 B^4 with tongues *c*′, fitting grooves c^2 in the sash-stiles, and the stops G are provided adjacent to the stiles B′ B^2 with grooves for the reception of the tongues *c*.

The sash A is hinged to the suspending-stile A^2 at the stile A^4 by hinges *d*, and the sash B is similarly hinged to the suspending-stile B^2 at the stile B^4 by hinges *e*. The manner of connecting each sash to its suspending-stiles is the same. It may be added that each sash has tongue-and-groove connection with its suspending-stiles and that the right-hand suspending-stiles are detachably connected with their sashes by locks of like construction, the lower locking device being clearly shown in Figs. 3 to 5, inclusive.

Each suspending-stile has attached to it in a suitable groove for housing the same a cord *f*, which passes over a pulley and is attached to a counterweight. Each right-hand suspending-stile is supplied with a spring-held latch, comprising a vertical arm *g*, lying just in the rear of the tongue *c* in a recess in the stile, a horizontal arm *g*′, lying in a horizontal recess g^2, a laterally-projecting thumb-piece g^3 on said horizontal arm, and an enlargement g^4, affording a bearing for the spring employed. The latch is pivoted on a screw g^5 at the lower end of the vertical arm. g^6 is the spring, firmly secured to the suspending-stile at its lower end and bearing at its upper end against the enlargement g^4. The horizontal arm *g*′ works beneath a recessed metallic plate g^7 on the front face of the suspending-stile and bridging the recess g^2, and its end projects (when the stiles are in registration) into a slot g^8 in and beneath a metallic plate g^9 on the inner face of the sash-stile B^3.

The pulley-stile C is provided with recesses *h*, (one only shown,) so located that when the sashes are elevated the recesses come opposite the elbows of the pivoted latches to permit the latter to be moved to unlock the suspending-stiles from the sash-stiles. The springs g^6 perform the double function of holding the latches and of taking up looseness between pulley-stiles and suspending-stiles. The purpose of having the recesses *h* located in an elevated position is to prevent detachment of the suspending-stile when

in a low position, whereby the counterweight, freed from the heavier weight of the window, might jerk the suspending-stile suddenly upward, with danger of snapping the cord.

The manner of operating the window is to raise the bottom sash to the top of the window-frame, press upon the thumb-piece g^3 to disengage the stile B′ from the sash, and then lower the latter to the position shown in Fig. 3, the stile B′ remaining in the position there shown. To permit the sash to swing inwardly upon the hinges *e* to the position shown in dotted lines in Fig. 2, the tongue *c′* at the stile B^2 is beveled on the outer side, and in the construction shown the tongue *c′* on the stile B′ is cut away at its lower end. If desired, felt or rubber may be employed to make the joints air and dust tight. In the construction here shown the top sash is disconnected from its right-hand suspending-stile in precisely the same manner as the lower sash, and the sash is lowered to the bottom of the window-frame and there swung on its hinges, while the lower sash is still open. After the upper window has been cleaned it is swung shut and elevated to its proper position, where it is automatically locked to the suspending-stile. The lower window after being cleaned is then swung shut, elevated till it becomes automatically locked to its suspending-stile, and finally is lowered to its proper position, completing the operation.

The novel features of construction may be employed either in connection with new windows or with old windows.

The details of construction may be varied without departure from my invention. Hence I wish to be understood as intending no limitation by the particular description thereof except as shall appear from the appended claims.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a window, the combination of a two-sash frame, a sash, a suspending-stile, a lock on said stile engaging a part on said sash, and a recess at the upper portion of the frame for permitting said lock to be moved to free the suspending-stile from the sash, said frame being adapted to prevent movement of the lock except when the stile is in an elevated position, substantially as and for the purpose set forth.

2. In a window, the combination of a two-sash frame having a pulley-stile provided at its upper portion with a slot, a sash, a suspending-stile, a lock carried by the stile engaging said sash and adapted to enter said slot when the stile is in an elevated position, and pivotal means for supporting the sash, substantially as and for the purpose set forth.

3. In a window, the combination with the frame, of a sash, a suspending-stile, pivotally joined to one vertical edge thereof, a suspending-stile at the opposite vertical edge provided with a lock-recess, a pivoted lock-piece carried by said last-named stile adapted to engage said recess, and a spring bearing against said lock-piece and against said frame, substantially as and for the purpose set forth.

4. In a window, the combination with a sash and a detachable suspending-stile of a lock-piece having a vertical arm *g* pivotally connected to the stile, a horizontal arm *g′* projecting into a recess in the sash, a thumb-piece on said horizontal arm, and a spring, substantially as and for the purpose set forth.

JOHN P. W. PATILLO.

In presence of—
D. W. LEE,
A. D. BACCI.