

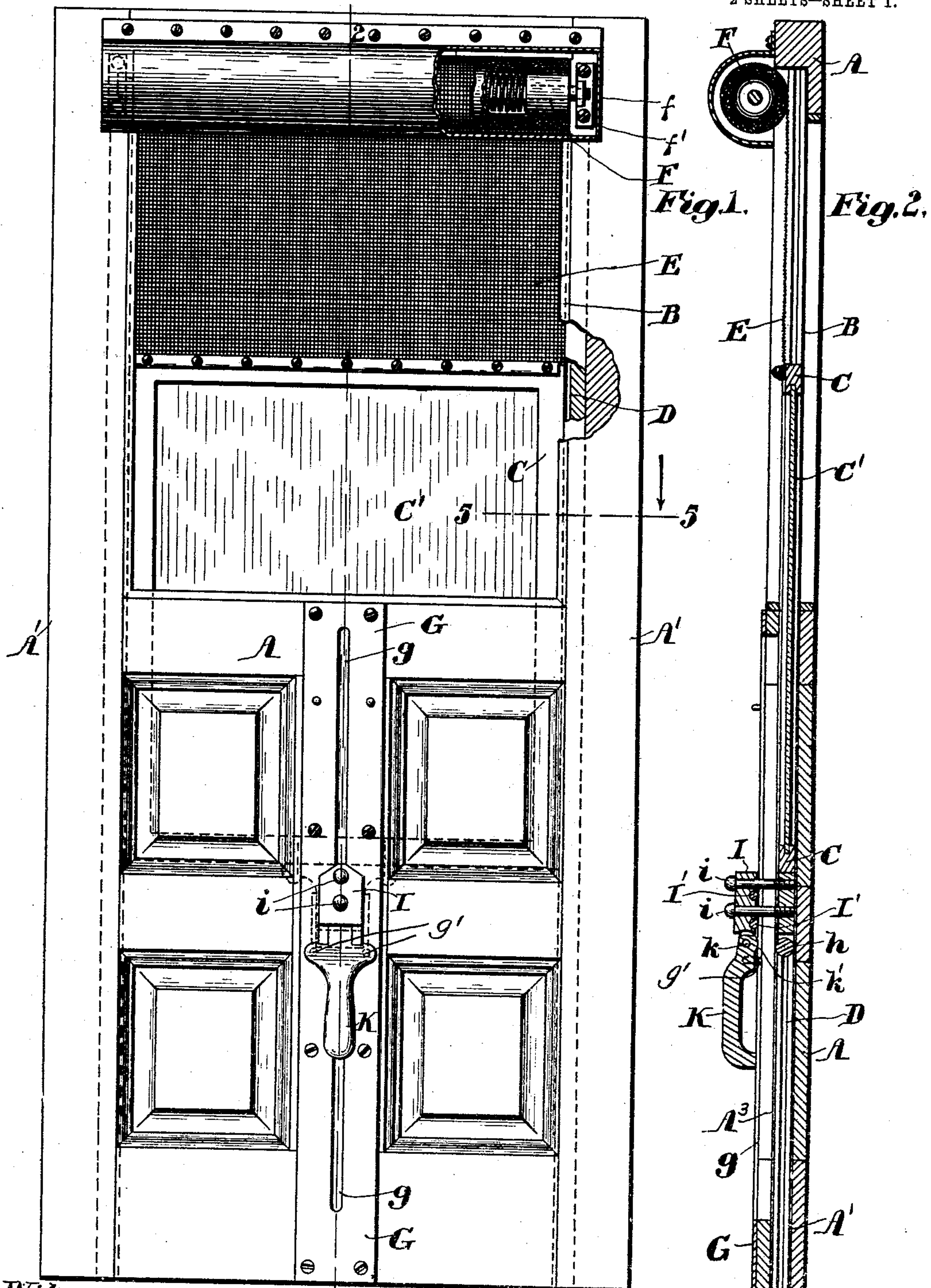
No. 771,688.

PATENTED OCT. 4, 1904.

E. P. WILLIAMS.
ADJUSTABLE SCREEN DOOR.
APPLICATION FILED FEB. 6, 1904.

NO MODEL,

2 SHEETS—SHEET 1.



Witnesses:
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Wesley W. Rhoades

Inventor:
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by Alvan Andren Atty.

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2 SHEETS—SHEET 2.

Fig. 3.

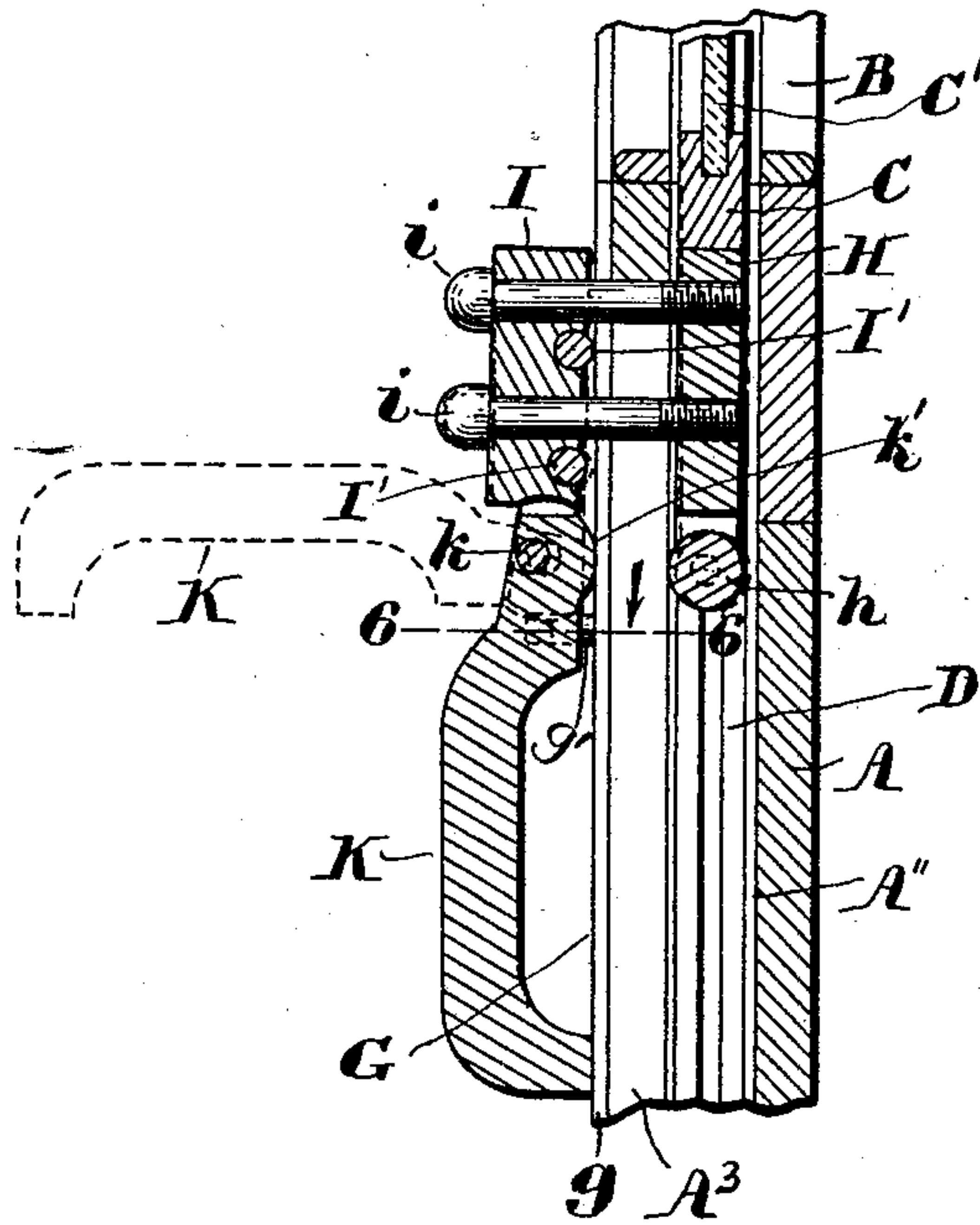


Fig. 4.

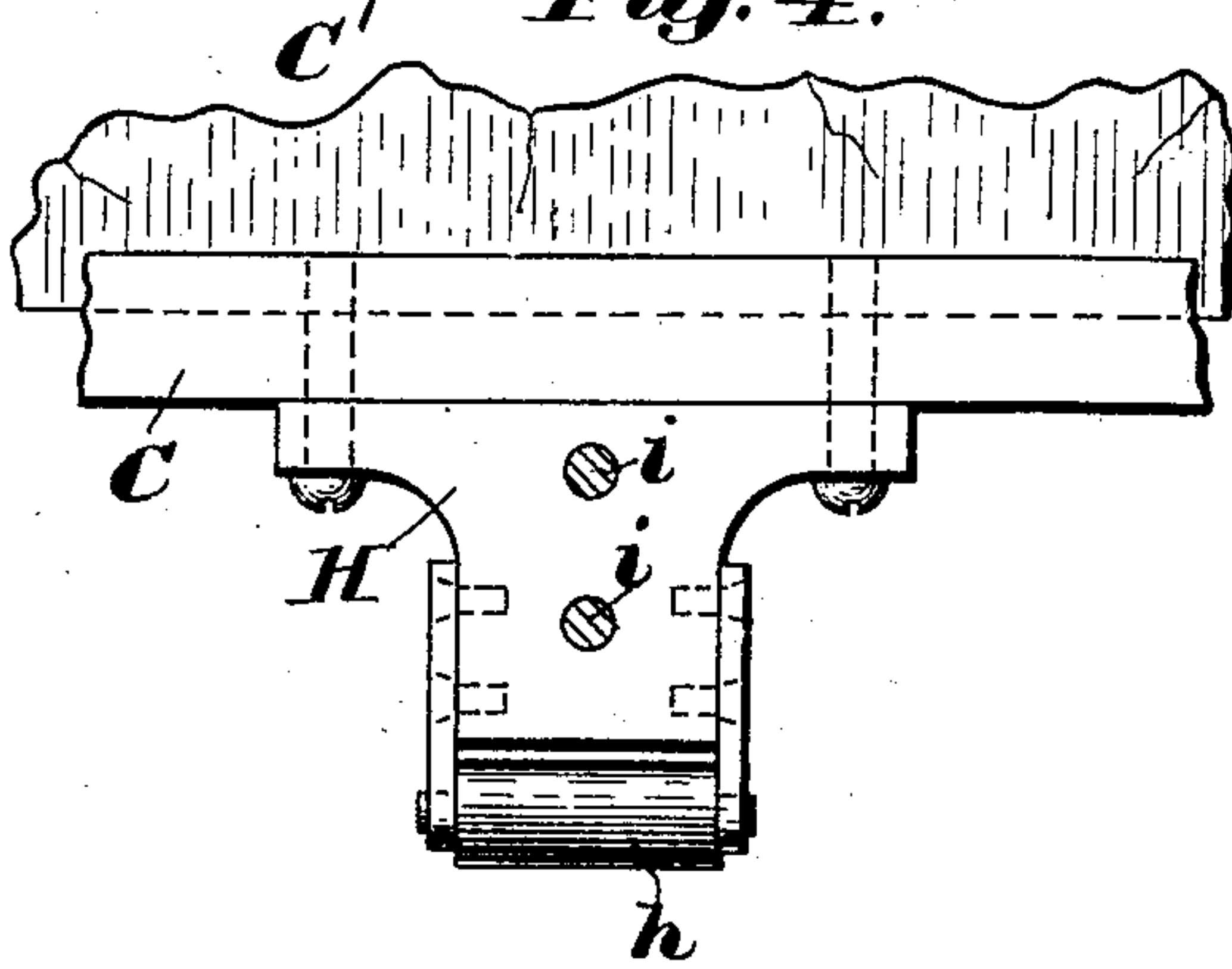
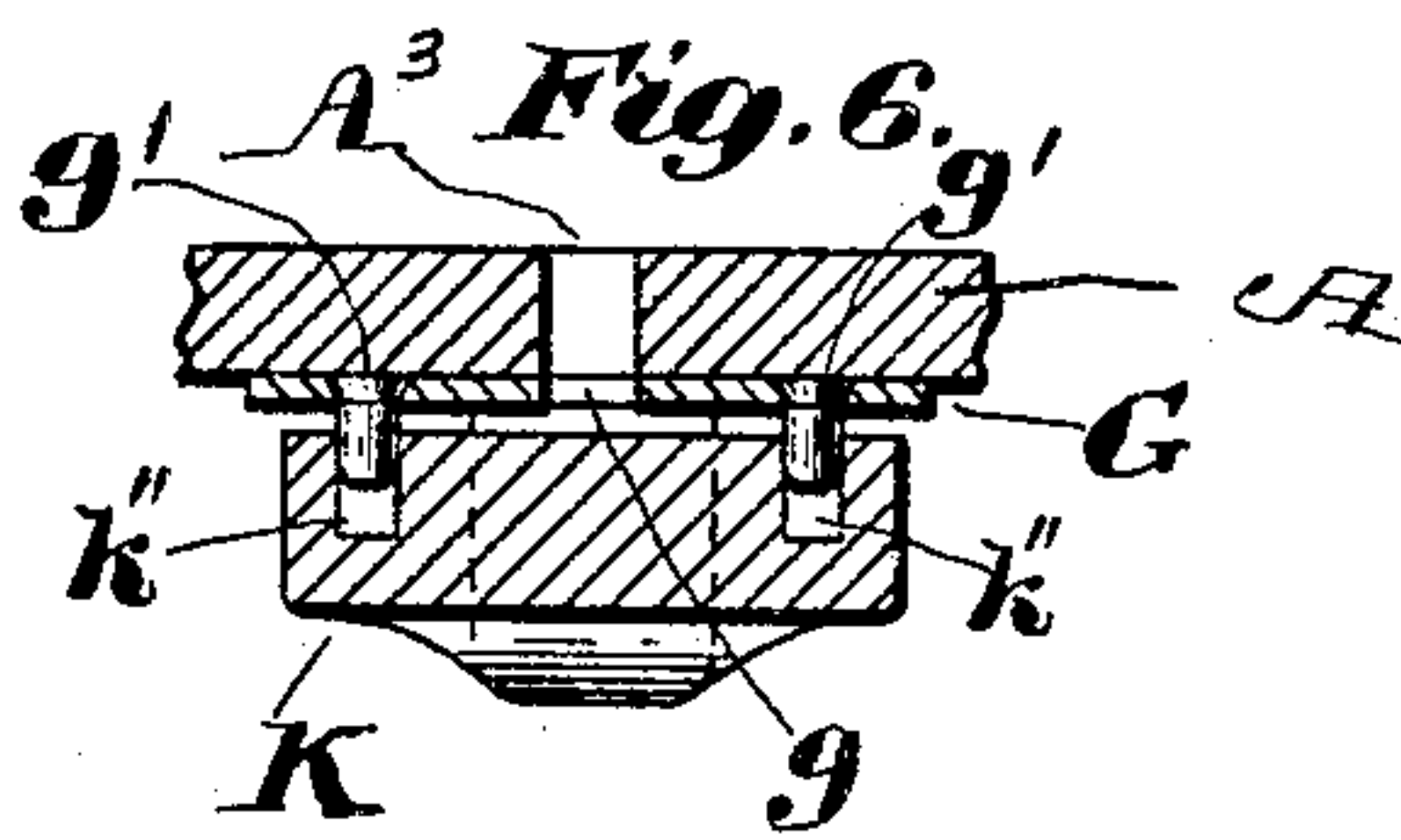
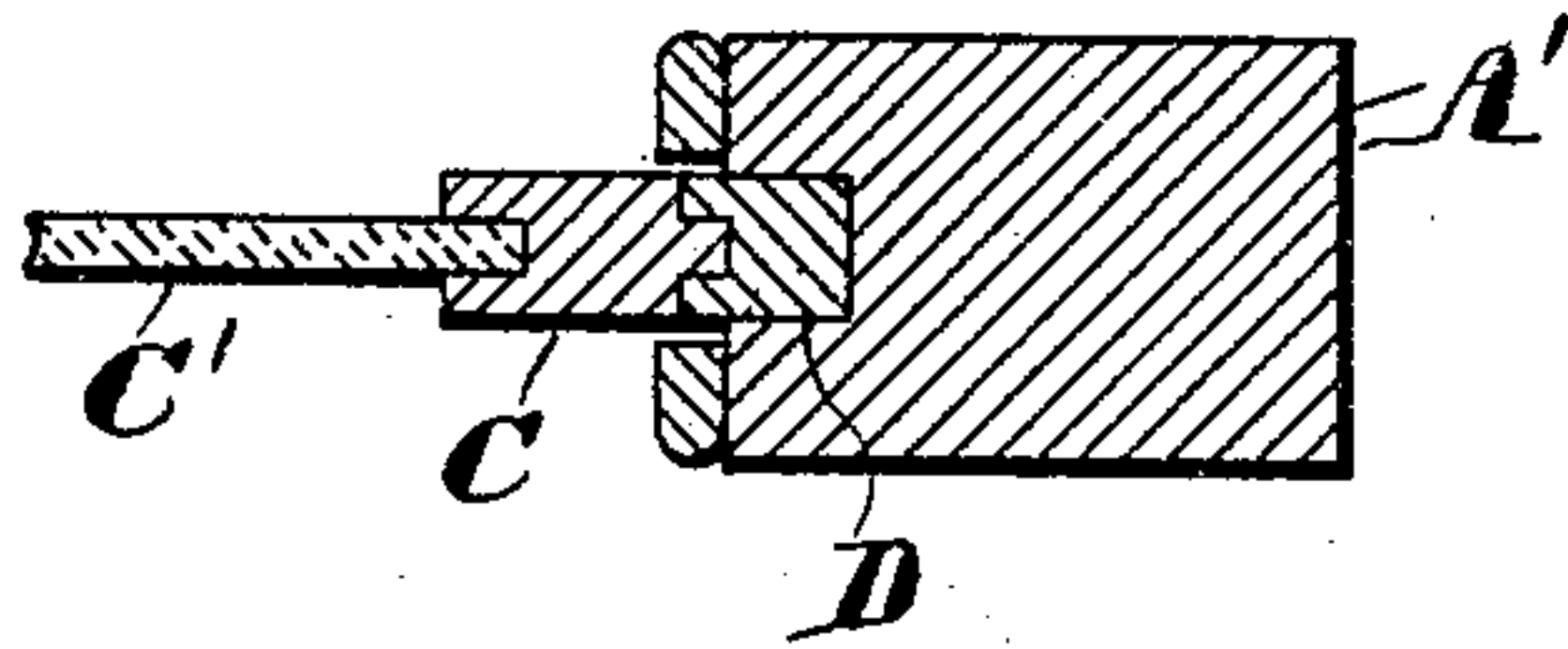


Fig. 5.



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UNITED STATES PATENT OFFICE.

EBEN P. WILLIAMS, OF HYANNIS, MASSACHUSETTS.

ADJUSTABLE SCREEN-DOOR.

SPECIFICATION forming part of Letters Patent No. 771,688, dated October 4, 1904.

Application filed February 6, 1904. Serial No. 192,333. (No model.)

To all whom it may concern:

Be it known that I, EBEN P. WILLIAMS, a citizen of the United States, and a resident of Hyannis, in the county of Barnstable and State of Massachusetts, have invented certain new and useful Improvements in Adjustable Screen-Doors, of which the following is a specification.

This invention relates to improvements in adjustable screen-doors adapted for ventilating purposes, preferably adapted for outside doors; and it consists, in combination with a door, of a vertically-adjustable glass-covered frame or sash and a spring-actuated screen or netting connected to said sash and means for securing said glass-covered sash and the screen in any desired vertical position according to the degree of ventilation desired and means for securing the glass-covered sash in a closed locked position, as will hereinafter be more fully shown and described, reference being had to the accompanying drawings, wherein—

Figure 1 is a front elevation of the door, showing the ventilating-screen partly open with a portion of the side piece of the door broken away to show the construction of the guide for the adjustable window-sash and showing a portion of the spring-actuated roller in elevation and a portion of the netting and inclosing case broken away. Fig. 2 is a vertical section on the line 2 2 shown in Fig. 1. Fig. 3 is an enlarged sectional detail of the handle for manipulating the window sash and screen, showing in full lines the handle engaging the lock-pins and showing in dotted lines said handle swung into a horizontal position for adjusting the position of the window sash and screen. Fig. 4 is an enlarged detail front view of the lower end of the window-sash, showing the clamping-roll. Fig. 5 is an enlarged sectional detail on the line 5 5 shown in Fig. 1; and Fig. 6 is a detail cross-section on the line 6 6 in Fig. 3, showing the handle engaging the locking-pins for holding the sash in closed locked position.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In the drawings, A represents an outside door for a house, on which A' A' are the up-

right stiles, as usual. The upper portion of the door is provided with an opening B. (Shown in Fig. 2.) The lower portion of the door is provided with a longitudinal slotted recess A'', (shown in Fig. 2,) adapted to receive the window-sash C. In practice I secure to the inner portions of the upright stiles A' grooved metal bars D, in which the window-sash C is guided during its vertical adjustment.

C' is a glass pane secured to the sash C in any suitable or well-known manner. To the upper end of the sash C is attached the lower end of a wire screen or netting E, the upper end of which is suitably secured to a spring-actuated roller F, similar in construction to ordinary spring shade-rollers and need not here be described in detail. The said spring-actuated roller has each end of its spring-actuated spindle *f* securely attached to a bracket *f'*, fastened in a suitable manner to the upper ends of the stiles A' A', as shown in Fig. 1.

The inside of the door is longitudinally slotted, as shown at A³ in Figs. 2, 3, and 6, and to the inside of the door is preferably attached a metal plate G, having a vertical slot *g*. (Shown in Figs. 1, 2, 3, and 6.)

To the lower end of the window-sash C is secured in a suitable manner a block H, to the lower end of which is journaled a roller *h*. (Shown in Figs. 2, 3, and 4.)

In connection with this my adjustable screen-door device I use an adjustable clamping device for securing the sash in any desired position relative to the door according to the amount of ventilation needed, and such clamping device is constructed as follows: It consists of a preferably metal block I, secured to the sash-block H by screw-bolts *i i* going loosely through the slots *g* and A³, respectively, in the door-plate G and door A, as shown. In practice I provide the under side of said block I with antifrictional rollers I' I', adapted to roll on the outside of the slotted door-plate G, as shown in Figs. 1 and 3. To the block I is pivotally connected at *k* a handle K. The inner pivoted end of said handle is provided with a cam projection or surface *k'*, which serves to frictionally clamp the roller *h* on the

window-sash C against the interior slotted portion of the door when the said handle is swung to the position shown in full lines in Figs. 1 and 2. By swinging the said handle to the position shown in dotted lines in Fig. 3 the window-sash is liberated and may be vertically adjusted by manipulating the handle K up or down, as may be desired. For the purpose of securely locking the window-sash in its highest position, as may be desired at night on retiring, I make on the door-plate G locking pegs or projections g' g' , adapted to engage with notches or recesses k'' k'' on the under side of the handle K when the latter is swung into locked position after the sash has been raised to its highest closed position, as shown in Figs. 3 and 6.

In using the device, supposing the sash is in its highest position and the screen rolled up on the spring-actuated roller F and it is desired to lower the sash and screen more or less, it is only necessary to swing the handle K from the position shown in Figs. 1 and 2 to that shown by dotted lines in Fig. 3, when the operator by holding the handle can readily move it downward the desired amount, thereby causing the sash and screen to be moved downward according to the amount of ventilation desired, after which the handle is swung to the position shown in Figs. 1 and 2, causing the sash and the roller h to be clamped in position by the cam-shaped surface k' on the handle K, as shown in Fig. 2. If it is desired to adjust the position of the sash and screen, it is only necessary to again swing the handle K to the position shown in dotted lines in Fig. 3, causing the sash to be released, after which it can be moved up or down, as may be desired, and the screen correspondingly and automatically wound upon the spring-actuated roller according to the degree of ventilation desired. If on retiring at night it is desired to raise the sash to the limit of its closed position, the handle K after the sash has been raised is swung to the position shown in Figs. 3 and 6, in which the recesses k'' on the handle K are caused to be interlocked with the projections g' on the plate G, attached to the inside of the door, thus preventing the sash to be lowered from the outside—in fact, leaving the door in position as if provided with a non-removable glass-covered sash.

Heretofore outer doors in houses, dwellings, &c., have been provided with a separate screen-door for purposes of ventilation and for excluding flies, insects, &c., which is both costly and inconvenient, and this objection is obviated with my device, in which one and the same door answers the purpose of a closing device in addition to means for ventilating and protection against flies, insects, &c.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

1. A door, having movable therein, a glass-covered sash, a screen interposed between the upper end of said sash, and a spring-actuated roller arranged at the upper end of the door, a block connected to the lower portion of said sash, the door being longitudinally slotted to receive the connecting means between said block and sash, a handle pivotally connected to said block, and having a cam-shaped friction holding projection adapted to engage a fixed part of the door to thereby hold the sash in a desired adjusted position and a roller journaled in the lower end of the sash substantially as and for the purpose set forth.

2. A door having movable therein a glass-covered sash, a spring-actuated screen connected to said sash, a block attached to the lower portion of said sash, a roller journaled in the lower end of the sash, a slotted plate secured to the inside of the door, the door being also slotted, a handle pivotally connected to said block by means extending through the slot in the plate and door respectively, and a cam-shaped frictional projection on said handle adapted to engage a suitable fixed part of the door to hold the sash in a desired adjusted position.

3. A door having a glass-covered sash vertically adjustable therein, a spring-actuated screen connected to said sash, a slotted plate attached to the inside of the door, the door being also slotted, a block attached to said sash by means passing through the slots in the plate and door, respectively, said block having antifriction-rollers adapted to roll on said plate, a roller journaled in the lower end of the sash, and a handle pivotally connected to said block and having a clamping projection adapted to engage a suitable fixed part of the door to hold the sash in the desired adjusted position.

4. A door having a glass-covered sash vertically adjustable therein, and a spring-actuated screen attached to said sash, a slotted plate attached to said door the latter being also slotted, a block attached to said sash by means passing through the slot in said plate and that in the door, and a handle pivotally connected to said block, said handle having recesses adapted to interlock with suitably-disposed projections for securing the sash in a predetermined position.

In testimony whereof I have affixed my signature in presence of two witnesses.

EBEN P. WILLIAMS.

Witnesses:

ALBAN ANDRÉN,

WILLARD B. ELLISON.