

No. 624,418.

Patented May 2, 1899.

G. A. YOULDEN.
WINDOW SCREEN.

(Application filed Feb. 24, 1899.)

(No Model.)

Fig. 1.

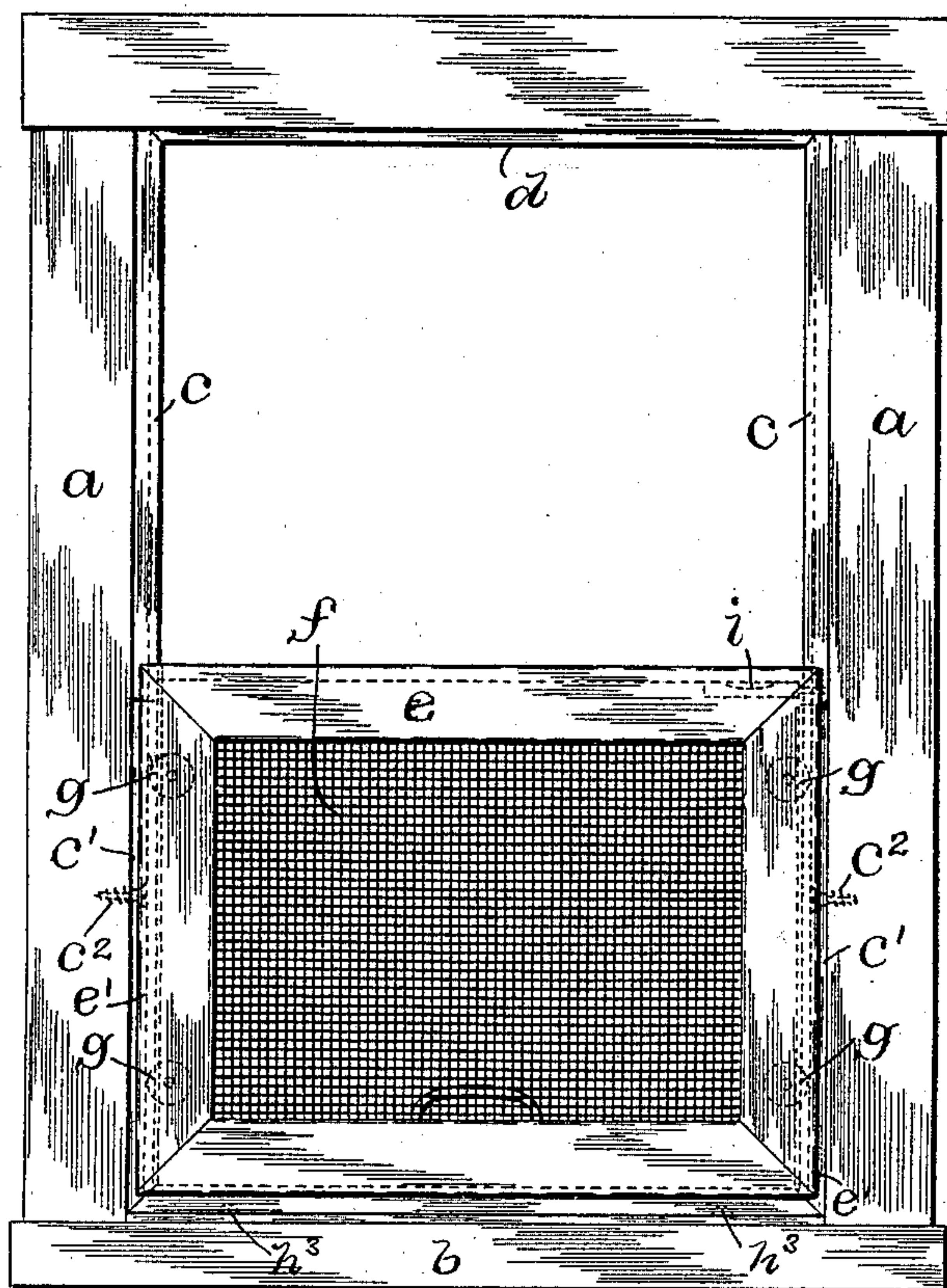


Fig. 2. Fig. 3.

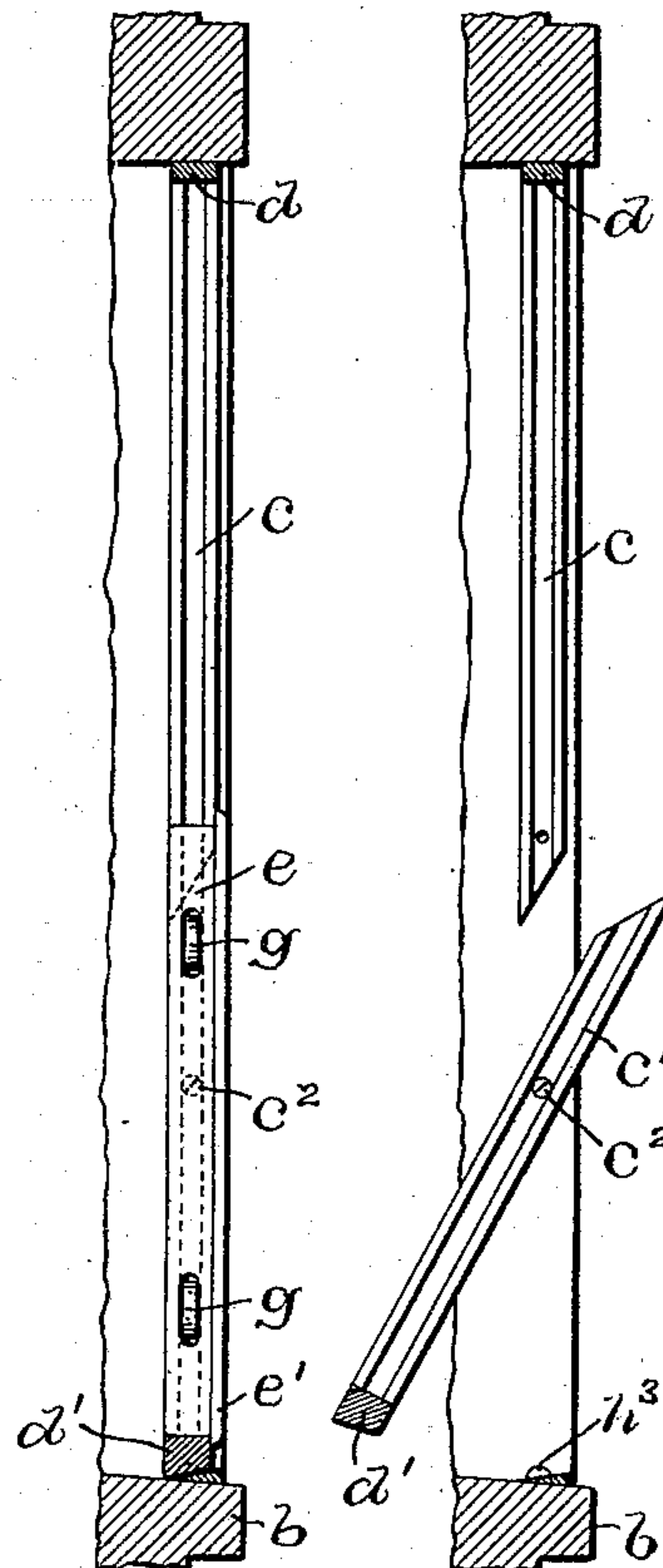


Fig. 4.

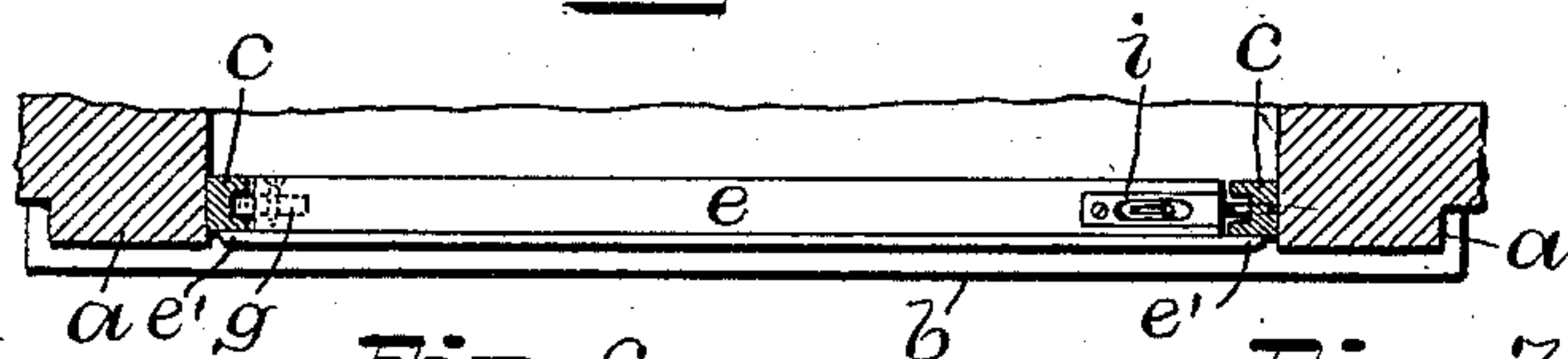


Fig. 5.

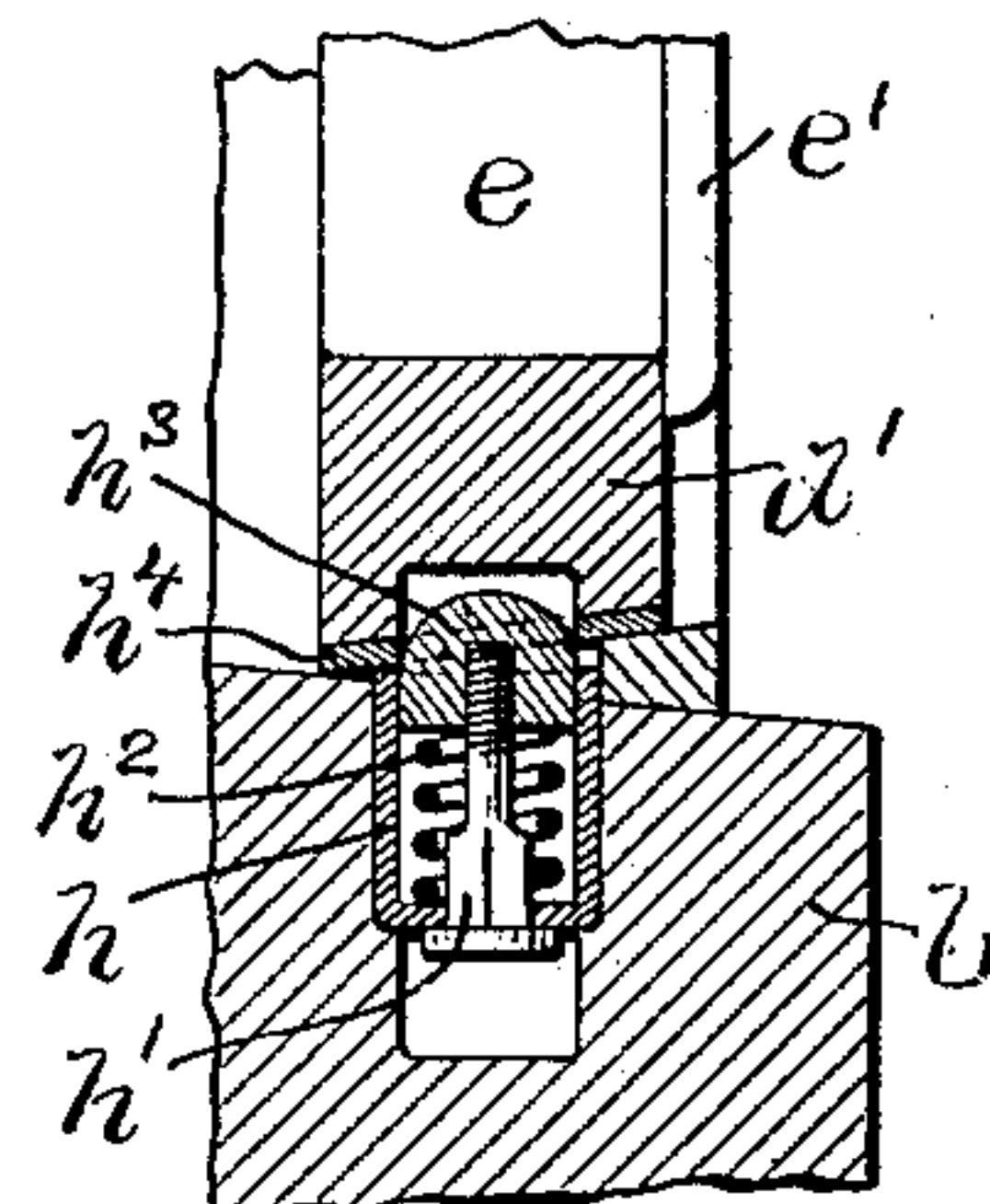


Fig. 6.

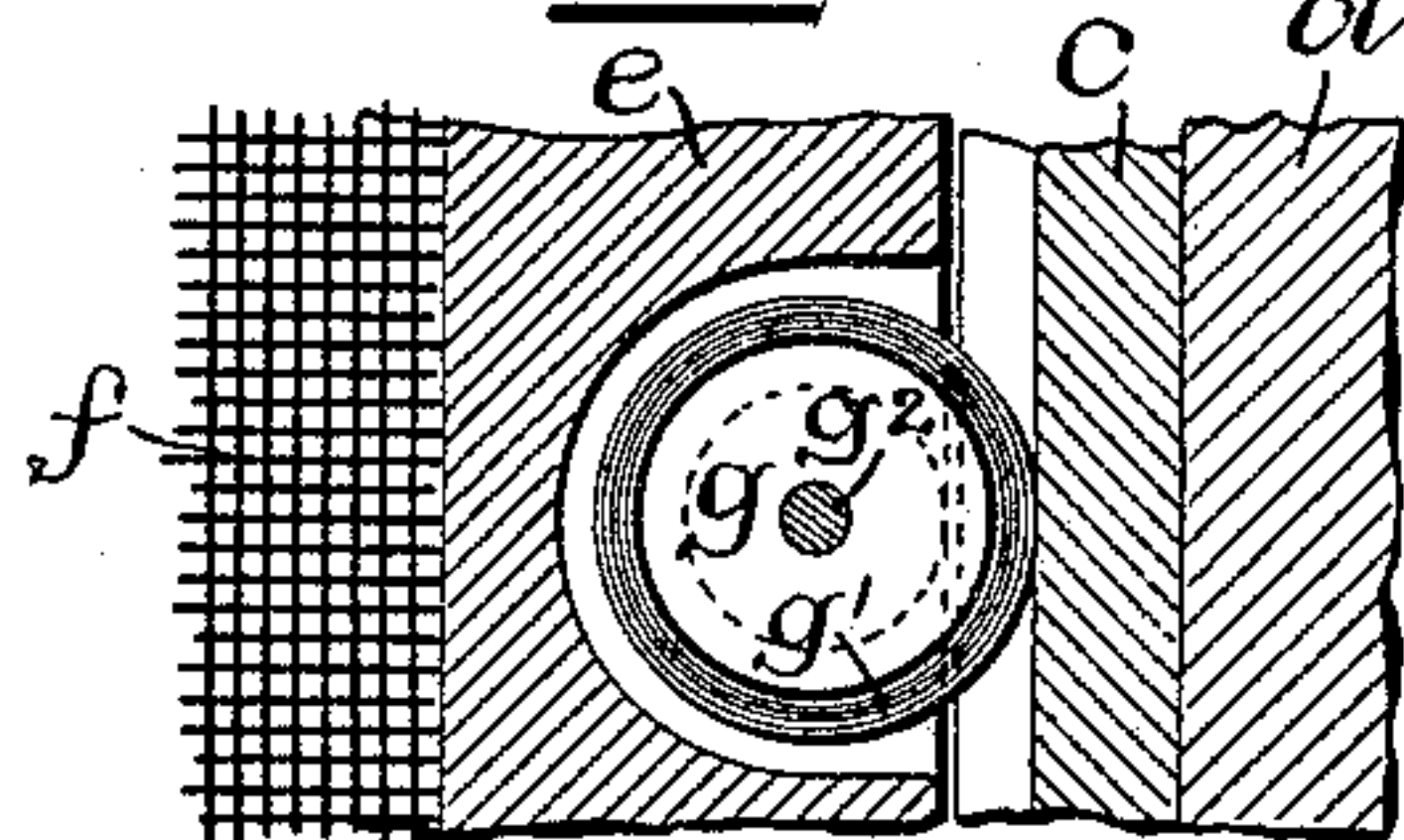
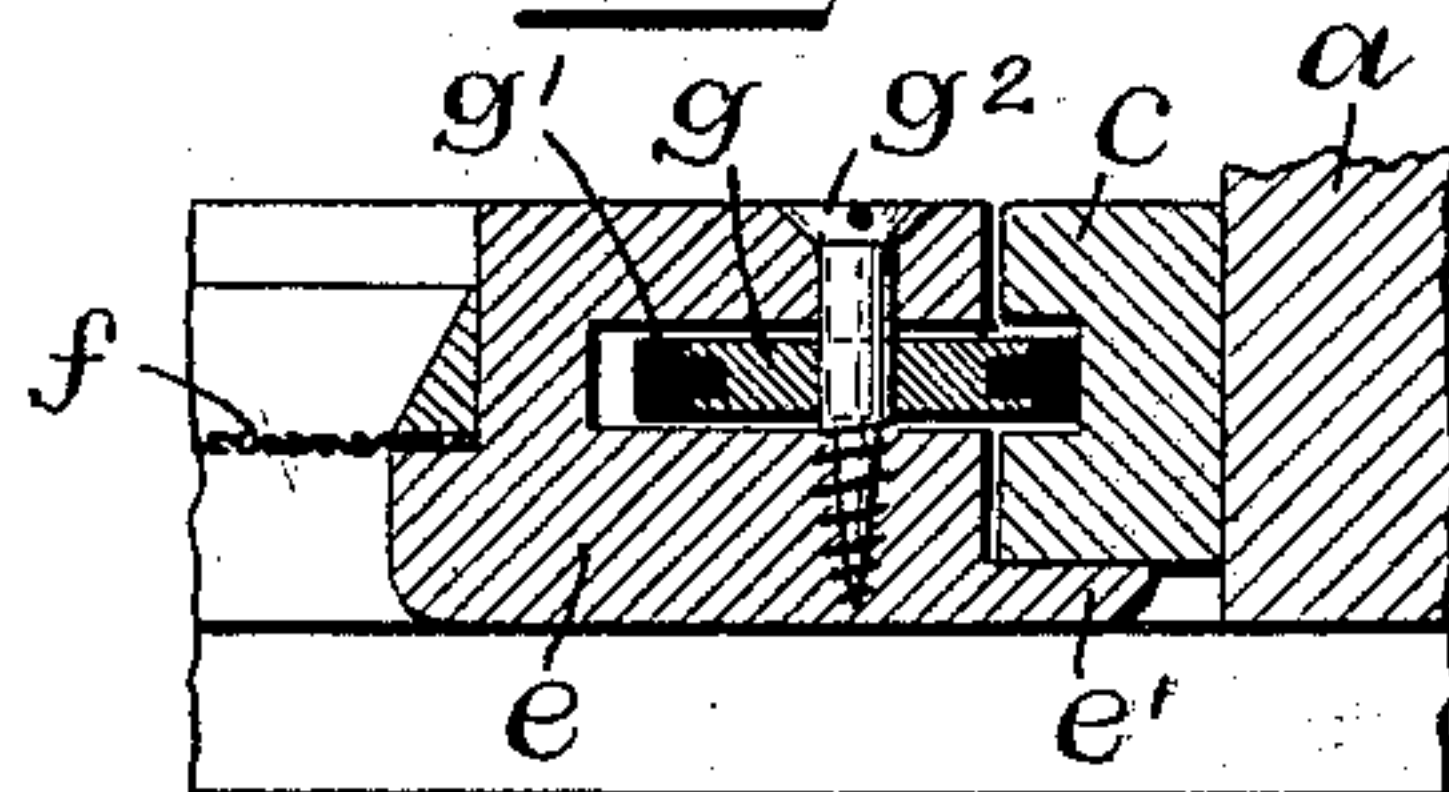


Fig. 7.



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UNITED STATES PATENT OFFICE.

GEORGE A. YOULDEN, OF PROVIDENCE, RHODE ISLAND.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 624,418, dated May 2, 1899.

Application filed February 24, 1899. Serial No. 706,676. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. YOULDEN, of Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Window-Screens; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to an improvement in the class of screens used on windows.

One object of the invention is to more securely exclude flies and other insects from the rooms; and a further object of the invention is to facilitate the operation and adjustment of the screen, as well as its ready removal; and to these ends the invention consists in the peculiar and novel construction of the screen and the ways in which it slides, as will be more fully set forth hereinafter.

Figure 1 is a front elevation of a window-frame, showing my improved screen and ways connected therewith. Fig. 2 is a vertical transverse sectional view of the window-frame, showing my improved screen in connection with the ways. Fig. 3 is a vertical transverse sectional view of the window-frame, showing the swinging portion of the ways by means of which the insertion and removal of the screen is facilitated. Fig. 4 is a horizontal sectional view of the window-frame, showing the screen in place. Fig. 5 is a sectional view of the window-sill and the lower end of the ways, showing a spring-latch by which the lower end of the ways is held in place. Fig. 6 is a sectional detail view of the screen, showing one of the rollers by which the screen is guided and supported. Fig. 7 is a transverse sectional view of Fig. 6.

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

In the drawings, *a a* indicate the sides of the window-frame; *b*, the sill; *c c*, the grooved ways by which the screen is guided and supported; *c'*, the hinged part of the ways; *d*, a top and *d'* a bottom rail connecting with the two ways on the sides of the window-frame; *e*, the frame of the screen, provided on its four sides with projecting flanges *e' e'*, overlapping the joint and part of the ways; *f*, the wire-cloth or other material of the screen; *g*,

grooved rollers provided with the T-shaped rubber rings *g'* and journaled on the screws *g²*. Two of these rollers are secured in recesses formed on each side of the frame *e* of the screen, as is indicated in Figs. 1 and 2. The upper parts of the ways *c* and the rail *d* are firmly secured to the frame. The lower parts *c' c'* of the ways and the bottom rail *d'* are pivoted on screws *c² c²*, screwed into the frame, as shown in Fig. 1, so that the lower ways, with the screen, may be swung into the inclined position shown in Fig. 3, when the screen may be removed or inserted. The rollers *g*, covered with the elastic rubber rings *g'*, form the guides for the screen. They run in the grooves of the ways *c*, as shown in Fig. 7. They are journaled on the screws *g² g²*, which are secured in the frame of the screen in such positions that the rubber rings *g'* on the roller *g* are compressed sufficiently to prevent rattling and preferably so that the screen will be supported when in the raised position and may be removed without the exertion of great force.

To secure the swinging ways *c' c'* and the rail *d'* in the vertical position, I place into the sill *b* one or two of the spring-latches, (shown in Fig. 6,) consisting of the metal tube *h*, the bolt *h'* in screw-thread engagement with the semispherical button *h³*, supported on the coiled spring *h²* and secured to the rail *d'*, the plate *h⁴*, provided with a recess corresponding with the button *h³*, so that the coiled spring will force the button *h³* to enter the recess and lock the rail *d'* and the swinging ways *c'* in the required position, while a sufficient strain on the rail *d'* will draw the rail over the rounded end of the spring-pressed button.

A window fitted with my improved ways and screen presents a neat and finished appearance. The screen, when desired, may be readily removed or placed in any desired position, and the overlapping flanges *e' e'* will cover and protect the joints, so as to prevent the entrance of insects. When used to cover the opening formed by the raising of the lower window-sash, the upper flange extends over part of the lower rail of the raised lower sash and over the lower rail *d'*, and when the upper sash is lowered the raised screen will cover part of the upper rail *d* and part of the upper rail of the lower sash. The screen

may be locked by the use of an ordinary bolt *i*, preferably sunk into the wood of the frame.

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

1. The combination with a window-frame, of the upper rail *d*, and the grooved ways *c c* secured to the window-frame, the rail *d'* and the ways *c' c'* pivotally secured to the win-
10 dow-frame, and means for securing the rail *d'* and the swinging ways *c' c'* in alinement with the ways *c c*; whereby the screen may be raised and lowered, as described.

2. In a window-screen, the combination
15 with the upper rail *d* and the grooved ways *c c* secured to the window-frame, the swinging ways *c' c'* and the lower rail *d'* pivotally secured to the window-frame, of the frame of the screen, flanges projecting from the four
20 sides of the frame overlapping part of the ways and adapted to overlap part of the upper or lower rails, the rollers *g g* grooved peripherally and journaled in the frame, and the rubber rings *g' g'*; whereby the screen
25 may be raised and lowered, as described.

3. In a window-screen, the combination with grooved, vertical ways secured to the

vertical sides of the window-frame, of the frame *e* of the screen, the projecting flanges *e'*, the screws *g² g²*, the grooved rollers *g* jour- 30
naled on the screws, and the rubber rings *g'* of T-shaped cross-section; whereby the screen may be moved and supported and the joints overlapped to prevent the entrance of in-
sects, as described. 35

4. In a window-screen, the combination with the ways *c c* and the rail *d* secured to the window-frame, the ways *c' c'* and the rail *d'* pivotally secured to the window-frame by the screws *c² c²*, of the screen-frame *e*, the pro- 40
jecting flanges *e'*, the rollers *g* journaled in the frame, the rubber rings *g' g'* on the roller, the plate *h⁴* on the rail *d'*, and the spring-pressed button *h³*; whereby the screen may be used to cover the upper or the lower part 45
of the window and the screen may be readily removed, as described.

In witness whereof I have hereunto set my hand.

GEORGE A. YOULDEN.

Witnesses:

J. A. MILLER, Jr.,

B. M. SIMMS.