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H. E. PALLADY.

WINDOW SCREEN FRAME.

APPLICATION FILED SEPT. 29, 1905.

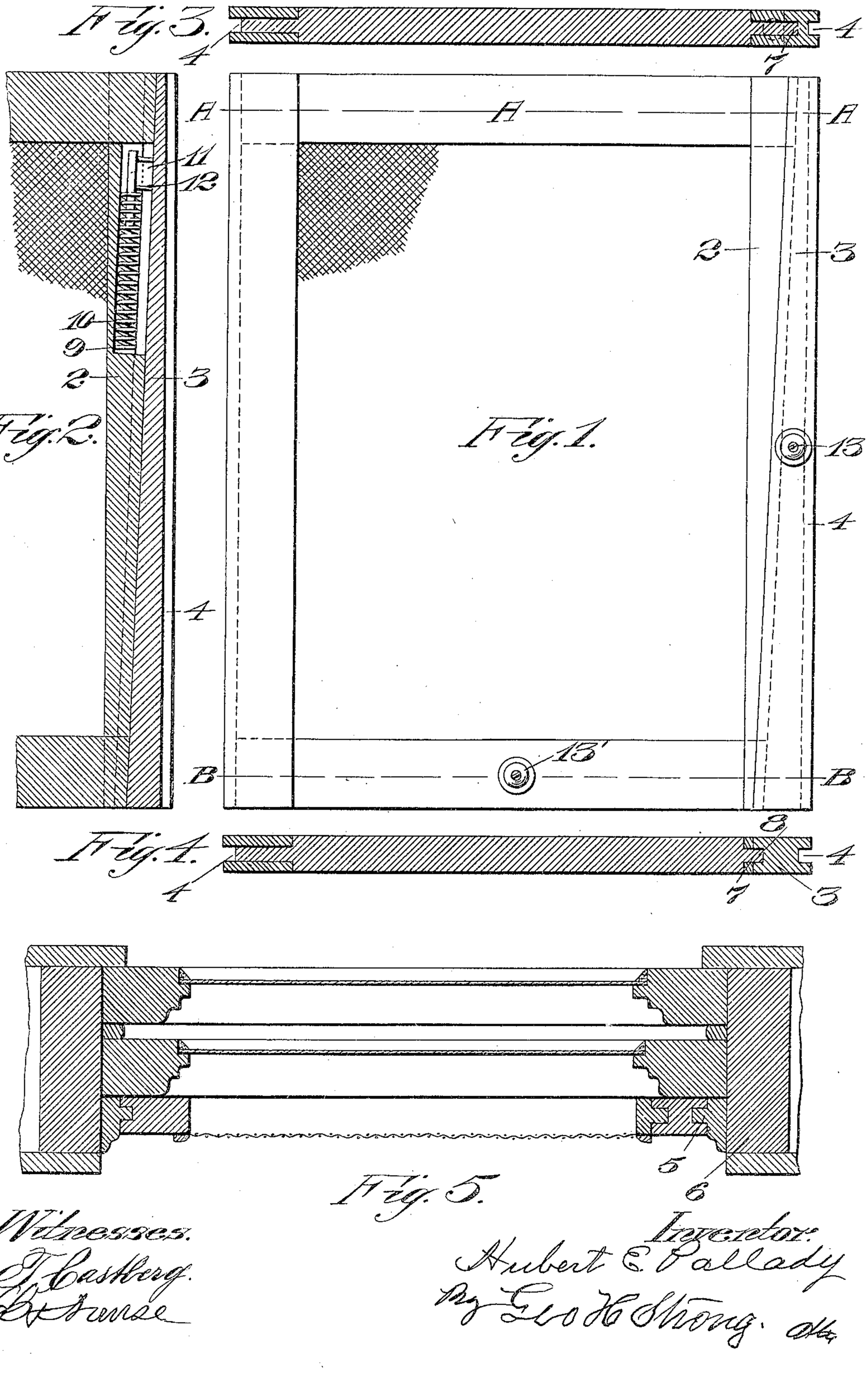

Fig. 3.

Fig. 2.

Fig. 1.

Fig. 4.

Fig. 5.

Witnesses.
E. Eastberg.
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UNITED STATES PATENT OFFICE.

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WINDOW-SCREEN FRAME.

No. 813,234. Specification of Letters Patent. Patented Feb. 20, 1906.

Application filed September 29, 1905. Serial No. 280,585.

To all whom it may concern:

Be it known that I, HUBERT EUSTICE PALLADY, a citizen of the United States, residing at Sebastopol, in the county of Sonoma and State of California, have invented new and useful Improvements in Window - Screen Frames, of which the following is a specification.

My invention relates to an improved window-screen frame. Its object is to provide a cheap, simple, practical frame with a screened aperture of fixed size, but which frame will be contractible and expansible to permit its easy insertion into and removal from a window-casing, which is capable of movement to any part of the window-opening, according as ventilation is wanted at top or bottom of the window, which is self-locking in the window-casing, and which will not interfere in any way with the ordinary movement of the sashes.

The invention consists of the parts and the construction and the combination of parts, as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a side elevation of my window-screen frame. Fig. 2 is a partial vertical longitudinal section. Fig. 3 is a section on line A A. Fig. 4 is a section on line B B. Fig. 5 is a longitudinal section through a window-casing, showing the attachment of my invention.

A represents a rectangular screen-frame of any suitable size and material, having the screen secured to it by appropriate means. One side of the frame is divided diagonally into two sections 2 3, the section 2 being rigid with the rest of the frame and the section 3 being slidable wedge fashion and vertically on the section 2. The outside edge of section 3 and the outside edge of the opposite side bar of the frame are vertically grooved, as at 4, to adapt the frame to slide on the vertical beads or guide-strips 5 of a window-casing 6. The section 2 has its edge contiguous to section 3 inclined downwardly and inwardly, and the outside edge of the movable section 3 is always parallel with the outside edge of the opposite side bar of the frame. When the rigid part of the frame and section 3 are moved in one direction relative to each other, the width of the entire frame is reduced to allow the frame to be placed in the window-opening, and when they are moved in an opposite direction relative to one another the frame is expanded to lock the frame in the casing, and since the parts are placed in the window in such a fashion that the narrow end of section 2 and the wide end of the wedge-section 3 are at the bottom the weight of the rigid part of the frame will wedge the section 3 against the casing, and the frame will be locked in position by gravity. The tenons 7 on both the top and bottom rails of frame A project as guides beyond the outer edge of section 2 to engage in the groove 8 on the adjacent inclined edge of the section 3. In order to maintain the frame in normally expanded position automatically, I employ a spring 9, which is housed in a slotted cylinder 10 between the sections 2 3 and carried by one of the sections, as 2, and I also provide a follower part 11 on the other section, 3, to bear on this spring. When sections 2 3 are moved in relation to one another to contract the frame, the spring is compressed. Releasing the parts allows the spring to expand and tends to wedge the part 3 all the tighter against the casing. The follower 11 being cylindrical and supported on studs 12 on section 3 and engaging in the slotted cylinder 10 serves also as a guide and as a keeper to hold the section 3 to section 2 and prevent the parts separating, the cylinder, spring, and follower being preferably so positioned relative to the upper guide-tenon 7 that the latter prevents the complete withdrawal of the follower from the cylinder. Respective finger-holds 13 13′ are provided on the bottom rail of the frame and section 3.

In operation the section 3 is slid down on section 2 to contract the frame and allow the frame to be inserted between the guides 5 on the casing. On releasing the hold on either or both of the parts A 3 the part 3 is wedged outward against the casing to lock the screen in the window. If it is desired to raise the screen to any position in the casing, it is only necessary to take hold of the handle or button 13′ and lift up on the frame, since the wedge-section 3 follows up automatically and keeps parallel with the opposite side of the frame. Having moved the screen to the desired height, the hold on handle 13′ is released, and the wedge instantly acts through spring 9 and the force of gravity to lock the screen in the window. To remove the screen or lower it, one takes hold of both buttons 13′ 13, moving the latter down slightly, while holding the former to sufficiently contract the frame.

As my guides 5 are inside the sashes and run the full length of the casing, I may use the

screen without interfering in any way with the operation of the sashes. I am enabled, moreover, to ventilate at top or bottom of the window without ever having actually to remove or reinsert the screen. It is always in position and is entirely self-locking.

It is possible that various modifications in my invention may be made without departing from the principle thereof, and I do not wish to be understood as limiting myself beyond the reasonable construction of my claims.

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

1. A screen or like frame having a light-aperture of fixed size, one of the side rails of the frame being divided diagonally into two sections, one of the sections being slidable lengthwise on and relative to the other to contract or to expand the frame transversely.

2. A screen or like frame having rigidly-connected top, bottom and side rails, one of said side rails being divided diagonally into two sections, one of said sections being movable lengthwise on the other to contract or expand the frame, and spring-actuated means carried by the sections operating to hold the sections normally in expanded position.

3. A screen or like frame comprising rigidly-connected top, bottom and side rail portions, one of said side rail portions being provided with a lengthwise-movable wedge member, a follower on said wedge member, and a spring housed in a corresponding part of the frame coacting with the follower to move the wedge to expand the frame.

4. A screen or like frame having a side rail divided longitudinally into two wedge-shaped sections, the outer section movable lengthwise on the other to expand or contract the frame, a spring carried by one section, and a follower carried by the other section and coacting with the spring to hold the sections normally in expanded position.

5. A screen or like frame having top, bottom and side rails, one of said side rails divided diagonally into two sections, the outer section forming a wedge member movable lengthwise on the other section to expand or contract the frame, the inner edge of the outer section being longitudinally grooved, and the top and bottom rails of the frame having tenon portions projecting into said groove, and means for holding said sections together.

6. A screen or like frame having top, bottom and side rails, one of said side rails divided diagonally into two sections, the outer section forming a wedge member movable lengthwise on the other section to expand or contract the frame the inner edge of the outer section being longitudinally grooved and the top and bottom rails of the frame having tenon portions projecting into said groove, a spring housed in a slotted part in one of said sections, and a follower carried by the other section coöperating with the spring to hold the sections in normally expanded position.

7. The combination with a window-casing having vertical guides, of a screen or like frame slidably mounted in said guides, said frame having one of its sides diagonally divided into two sections, the outer of said sections forming a wedge with its widest end downward, said wedge movable lengthwise on the inside section to contract or expand the frame, and said sections coöperating to lock the frame at any desired point in the casing.

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

HUBERT EUSTICE PALLADY.

Witnesses:

CHARLES E. BACON,

JOHN A. WILLIAMS.