

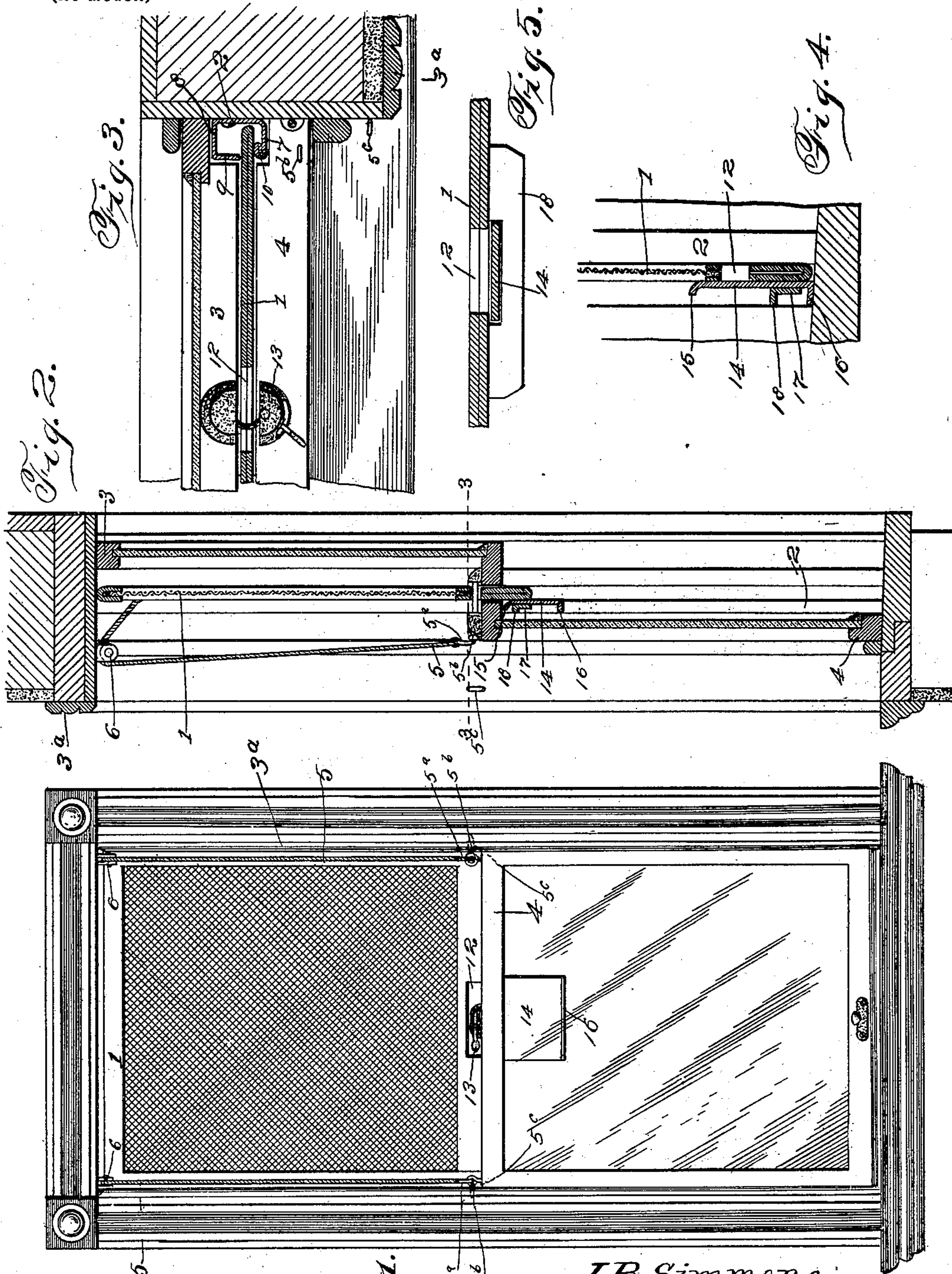
No. 671,840.

Patented Apr. 9, 1901.

J. B. SIMMONS.  
WINDOW SCREEN.

(Application filed Jan. 9, 1901.)

(No Model.)



Witnesses

*Wm. H. Maynard*  
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*Fig. 1.*

J. B. Simmons

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# UNITED STATES PATENT OFFICE.

JOHN B. SIMMONS, OF SHREVEPORT, LOUISIANA.

## WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 671,840, dated April 9, 1901.

Application filed January 9, 1901. Serial No. 42,684. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN B. SIMMONS, a citizen of the United States, residing at Shreveport, in the parish of Caddo and State of Louisiana, have invented a new and useful Window-Screen, of which the following is a specification.

The invention relates to improvements in window-screens.

10 The object of the present invention is to improve the construction of window-screens and to provide a simple and comparatively inexpensive one adapted to slide vertically between the upper and lower sashes and to be operated by the lower sash and provided with an opening to permit the sashes to be fastened with an ordinary sash-fastener and having means for automatically covering the said opening when the screen is at the bottom of the window and for similarly uncovering the opening when the screen is raised.

20 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

30 In the drawings, Figure 1 is an elevation of a window provided with a screen constructed in accordance with this invention. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a horizontal sectional view on the line 3 3 of Fig. 2. Fig. 4 is an enlarged vertical sectional view of the lower portion of the window, illustrating the arrangement of the slides when the screen is down. Fig. 5 is a detail view illustrating the manner of securing the slide to the screen.

40 Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a vertically-movable rectangular window-screen mounted in suitable guides 2 of a window-frame 3<sup>a</sup> and located between the upper and lower sashes 3 and 4 and connected with the lower sash 4 by cords 5 or other suitable flexible connections arranged on guide-pulleys 6, located at the top of the window-frame and adapted to cause the lower sash and the screen to move simultaneously in opposite directions. When the lower sash is raised, the screen will be automatically lowered, and when the said lower sash is lowered

the screen will be automatically raised. The guide-pulleys may be arranged in any suitable manner, but are preferably located at opposite sides of the window, as indicated in Fig. 1 of the drawings.

55 The cords 5 are provided at their lower ends with hooks 5<sup>a</sup>, adapted to engage either eyes 5<sup>b</sup> or 5<sup>c</sup>, mounted, respectively, at the top of the lower sash and on the sides of the window-frame, as clearly illustrated in Fig. 2 of the accompanying drawings. By this construction the lower or outer ends of the cords may be detached from the lower sash in winter to relieve the said sash of the weight of the screen when the latter is not in use, and by engaging the hooks of the cords with the eyes 5<sup>c</sup> of the window-frame the screen will be maintained in its elevated position at the top of the window-frame and the lower sash will move independently of the same.

75 The vertical guides, which are hollow and which are constructed of sheet metal, are interposed between the upper and lower sashes and form the parting strips for the same, and each guide is approximately rectangular in cross-section and is provided with sides 7 and 8, arranged as shown in Fig. 3. The rear side 8 has its edge bent at right angles to form a flange 9, and the other side has its longitudinal edge bent inward and folded at its inner face to provide a reinforced bearing portion 10. The flange 9 and the bearing portion 10 extend the entire length of the guide, and they are spaced apart to receive the screen.

85 The screen, which consists of a sheet of screen material and a metallic frame, is provided at the bottom of the latter with a centrally-arranged opening 12, located opposite the sash-fastener 13 when the screen is raised and adapted to be covered by an automatically-operating slide 14, consisting of a vertically-movable plate slidingly mounted on the screen, as clearly illustrated in Figs. 4 and 5 of the accompanying drawings. The vertically-movable slide is provided with upper and lower flanges 15 and 16, extending toward the interior of the room, and the upper flange is arranged to be engaged by the top of the lower sash, as clearly illustrated in Fig. 2 of the accompanying drawings, whereby the opening 12 will be automatically uncovered when the screen is raised. The ver-



tically-movable slide depends below the lower  
 edge of the vertically-movable screen when  
 the latter is arranged as illustrated in Fig. 2  
 of the accompanying drawings, and when the  
 5 screen is lowered the depending slide will en-  
 gage the bottom of the window-frame and  
 automatically cover the opening 12 to pre-  
 vent the ingress of insects. The slide is se-  
 cured to the lower portion of the screen by  
 10 means of a horizontal plate 17, secured at its  
 ends to the frame of the screen and offset  
 therefrom to provide the necessary space or  
 way for the slide. The plate 17 is provided  
 with a horizontally-projecting flange 18, form-  
 15 ing a grip and adapted to be readily grasped  
 by the operator when it is desired to raise the  
 screen without lowering the sash 4.

It will be seen that the screen is simple and  
 comparatively inexpensive in construction,  
 20 that it is automatic in its operation, and that  
 the opening of the screen is automatically  
 covered and uncovered when the lower sash  
 is raised and lowered. Furthermore, it will  
 be apparent that the screen will not interfere  
 25 with the use of a sash-fastener and that when  
 the screen is raised the sashes may be locked  
 and drawn tightly together to exclude air.

What is claimed is—

1. In a device of the class described, the  
 30 combination with a window having upper and  
 lower sashes and provided with a sash-fas-  
 tener, of a screen connected with one of the  
 sashes and adapted to be raised and lowered  
 by the same and provided with an opening  
 35 adapted to be arranged opposite the sash-  
 fastener to permit the sashes to be locked, and  
 an automatically-operating slide arranged to  
 cover and uncover the opening of the screen,  
 substantially as described.

40 2. In a device of the class described, the  
 combination with a window having upper and

lower sashes and provided with a sash-fas-  
 tener, of a vertically-movable screen provided  
 with an opening adapted to be arranged op-  
 45 posite the sash-fastener to permit the sashes  
 to be locked, and a vertically-movable slide  
 mounted on the screen at a point below the  
 said opening, and arranged to engage the top  
 of the lower sash and the bottom of the  
 window-frame, whereby it is automatically  
 50 opened and closed, substantially as described.

3. In a device of the class described, the  
 combination with a window having upper and  
 lower sashes and provided with a sash-fas-  
 tener, of a vertically-movable screen pro-  
 55 vided with an opening and adapted to be ar-  
 ranged opposite the sash-fastener, a plate se-  
 cured to the screen and spaced therefrom to  
 form a way and provided with a flange, and  
 the automatically-operating slide arranged  
 60 in the said way and provided with upper and  
 lower flanges and adapted to cover and un-  
 cover the said opening, substantially as de-  
 scribed.

4. In a device of the class described, the  
 65 combination with a window having upper and  
 lower sashes and provided at the top with  
 guide-pulleys and a sash-fastener, of a verti-  
 cally-movable screen provided with an open-  
 ing, cords arranged on the guide-pulleys and  
 70 connected with the screen and with the lower  
 sash, and a slide mounted on the screen and  
 arranged to cover and uncover an opening  
 thereof, substantially as and for the purpose  
 described.

In testimony that I claim the foregoing as  
 my own I have hereto affixed my signature in  
 the presence of two witnesses.

JOHN B. SIMMONS.

Witnesses:

GEO. L. WOODWARD,  
 H. HUNSICKER, Jr.