

(No Model.)

2 Sheets—Sheet 1.

C. I. STILL.
WINDOW SCREEN.

No. 574,959.

Patented Jan. 12, 1897.

Fig. 2.

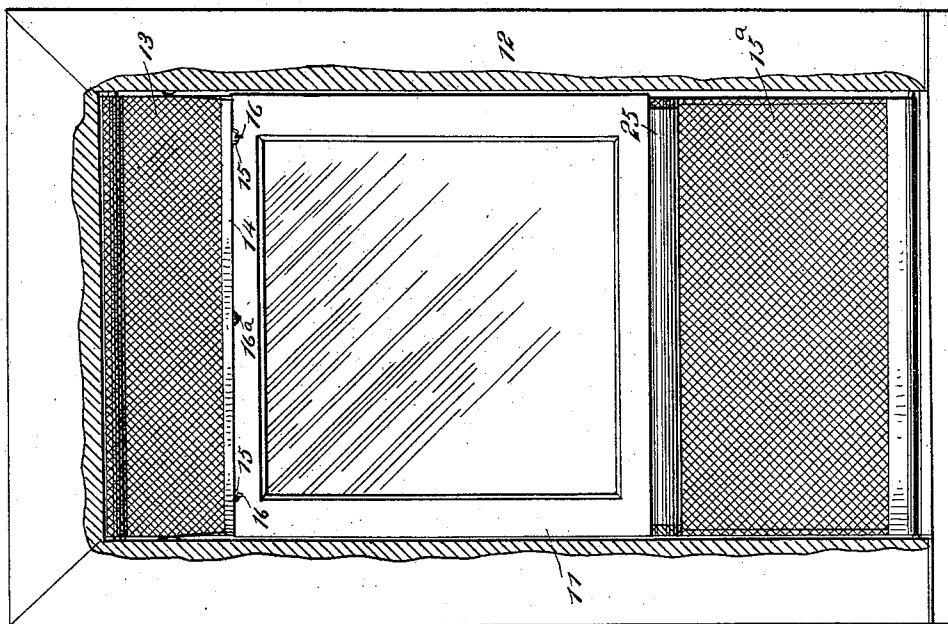
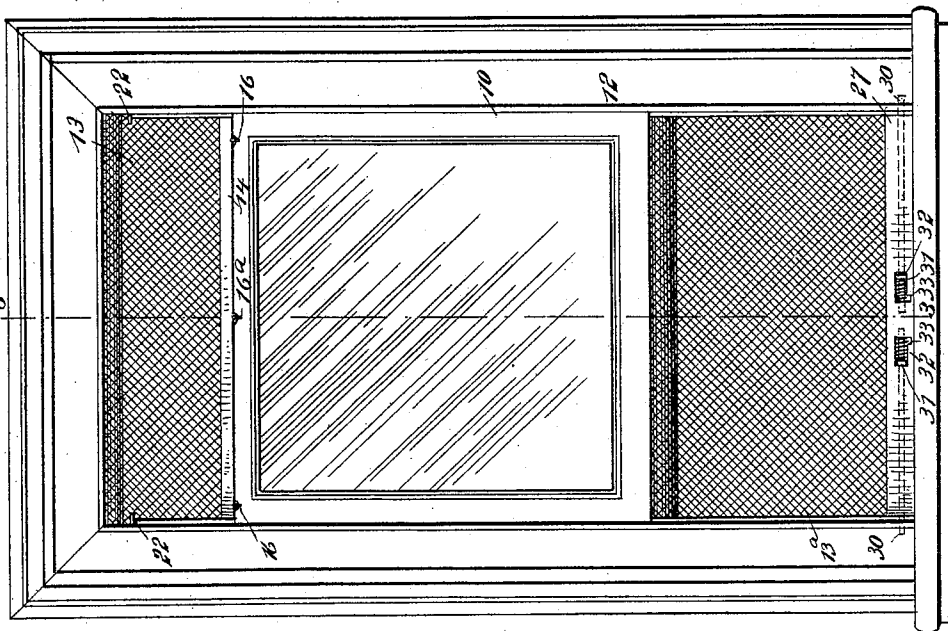


Fig. 1.



WITNESSES:

Paul J. Foster
W. B. Hutchinson

INVENTOR

C. I. Still

BY

Munn & Co

ATTORNEYS.

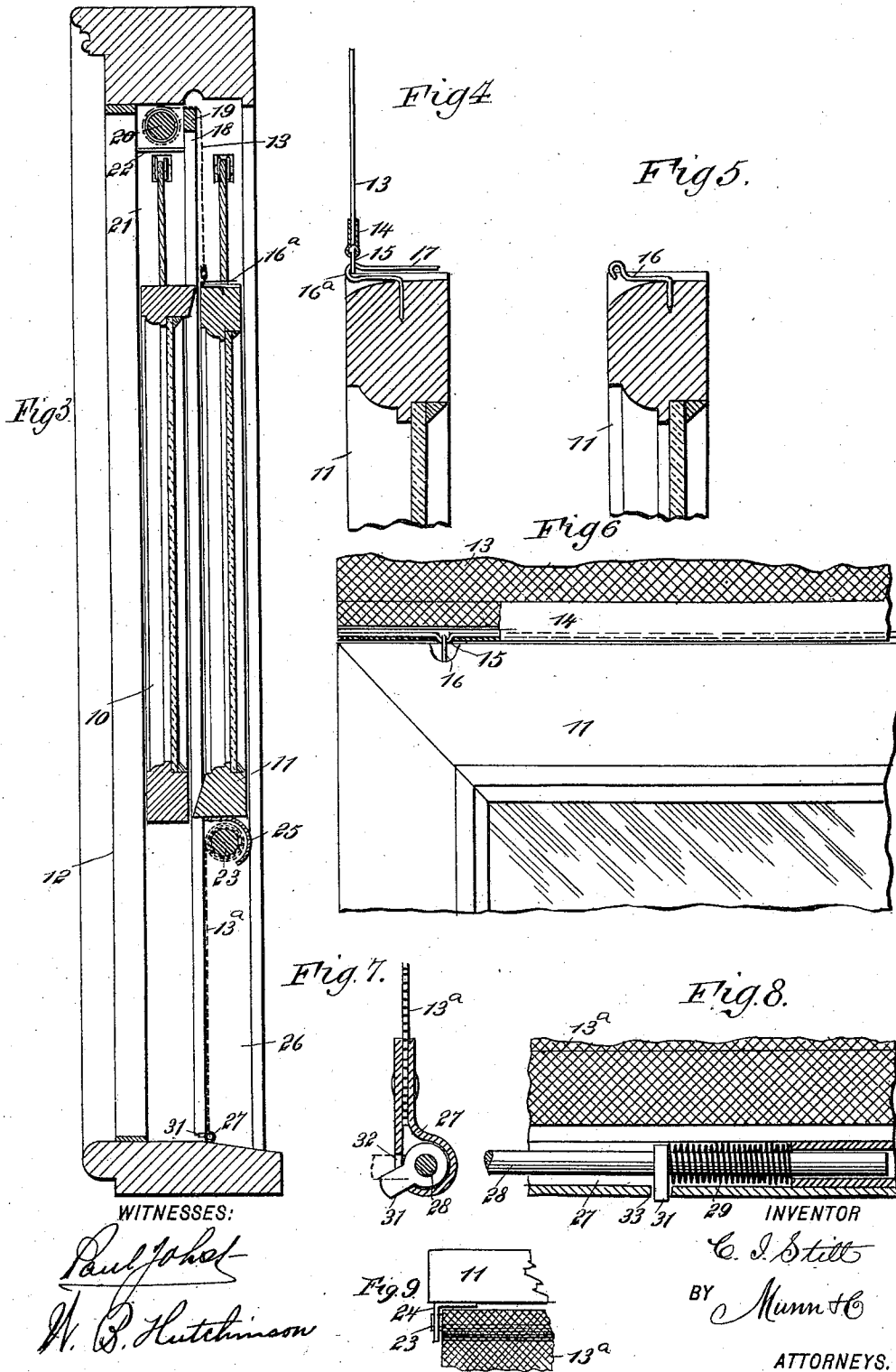
(No Model.)

2 Sheets—Sheet 2.

C. I. STILL.
WINDOW SCREEN.

No. 574,959.

Patented Jan. 12, 1897.



UNITED STATES PATENT OFFICE.

CHARLES I. STILL, OF SING SING, NEW YORK.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 574,959, dated January 12, 1897.

Application filed December 28, 1894. Serial No. 533,171. (No model.)

To all whom it may concern:

Be it known that I, CHARLES I. STILL, of Sing Sing, in the county of Westchester and State of New York, have invented a new and
5 Improved Window-Screen, of which the following is a full, clear, and exact description.

My invention relates to improvements in window-screens; and the object of my invention is to produce a simple device by means
10 of which screens may be attached to windows so as to open and close with the sashes, thus being entirely out of the way when the window is closed, so as not to obstruct the vision, but which when the sashes are open assume
15 their places, so as to close the window-opening and prevent the passage of insects through the window.

Another object of my invention is to attach the screens in such a way that they will in no
20 wise interfere with the manipulation of the window, that they may be attached to the ordinary window-sashes without altering the said sashes, and that the screens will be as much as possible protected from the weather.

25 To these ends my invention consists of certain features of construction and combinations of parts which will be hereinafter described and claimed.

Reference is to be had to the accompanying
30 drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is an inside elevation of a window provided with my improved screens, the
35 sashes being shown in a position midway of the window in order that both the upper and lower screens may be seen. Fig. 2 is an outside elevation, partly in section, of the window and screens. Fig. 3 is a central vertical section on the line 3 3 of Fig. 1. Fig. 4 is an enlarged detail sectional view showing the
40 means of attaching the upper screen to the middle part of the sash-top. Fig. 5 is a detail sectional view showing an end hook to connect the sash-top with the upper screen. Fig.
45 6 is an enlarged detail elevation, partly in section, showing the connection between the sash-top and the upper screen. Fig. 7 is an enlarged detail sectional view of the lower
50 edge of the lower screen and the fastening device thereto attached. Fig. 8 is a sectional elevation of the lower part of the lower screen,

showing in detail the fastening device to secure the screen; and Fig. 9 is a detail view showing the means of hanging the roller of 55 the lower screen.

I have shown my screen in connection with the ordinary sliding inner and outer sashes 10 and 11 of a window-frame 12. As illustrated, both upper and lower screens are 60 shown attached to the outer sash 11, but it is obvious, or will be after reading the description to follow, that the screens may be applied to the inner sash, if desired, but this arrangement is not so convenient as the other. 65

The upper screen 13 is attached to the top of the sash 11, and the screen has at its lower edge a binding-strip 14, which is provided with eyes 15, adapted to engage hooks 16 and 16^a on the top of the sash 11, and the middle 70 hook 16^a is provided with an outwardly-extending point 17, so that when it is necessary to press downward on the top of the sash 11 for any reason the eye 15, in connection with the hook, may be pushed outward, so as 75 to permit the screen to be similarly moved and expose the top of the sash without disengaging the hook and eye.

The screen 13 extends upward over the upper ends of the parting-beads 18 of the window 80 (see Fig. 3) and over guide-strips 19, connecting the two beads, and is secured to a spring-roller 20 of any usual kind, which is hung in the upper part of the runways 21 of the inner sash 10, in which runways are placed stops or 85 abutments 22, these being just below the roller 20, so as to prevent the sash 10 when raised from striking the roller and injuring it or the screen which it carries. The stops 22 serve also as the fixtures for the roller 20. The strip 90 19 is located quite close to the top of the window-casing, so that no flies or other insects can pass between the screen and the casing.

The lower screen 13^a is hung on the lower edge of the sash 11, being carried by a roller 95 23, which is supported in brackets 24, secured to the ends of the lower rail of the sash 11, and the roller is of the ordinary spring-roller type. The roller and the screen rolled on it are protected from the weather by a shield or 100 guard 25, which is secured to the sash and covers the outer part of the roller, as shown best in Fig. 3.

It will be observed that the guard is suffi-

ciently spaced from the screen to allow insects to pass outward between the guard and the screen, while insects will not pass inward through said space, as the space between the screen and the guard is much less at the outer or lower end of the guard than at the inner or upper end thereof.

The roller 23 is adapted to run in the runways 26 of the sash 11.

The lower end of the screen 13^a is provided with a casing 27, in which are held fastening-bolts 28, these being pressed outward by springs 29, so that they normally move into engagement with sockets 30 in the window-frame 12 at the foot of the runways 26, so that when the screen is pulled down the bolts, by engaging the sockets, hold it down.

The slide-bolts 28 are provided with finger-pieces 31, which extend laterally from them and project outward through slots 32 in the casing 27, and when the bolts are to be fastened in their inner position, in order that they may not bear too hard on the sides of the window-frame, the finger-pieces 31 are pressed inward and then turned down into notches 33 in the lower side walls of the slots 32, and the finger-pieces are retained and the bolts held in their inner position.

When the screen 13^a is not to be used, the bolts 28 are released from casing and the screen allowed to wind up on the roller 23, and if the screen 13 is not to be used it is released from the sash 11 and permitted to wind up on the roller 20. When, however, the two screens are connected, as shown in Fig. 3, to the upper and lower parts of the sash and to the upper and lower parts of the window-

frame, the window-opening will be closed by the screens without regard to the position of the sashes, for it will be seen that the screen 13 will wind up as the sash 11 is raised, while the screen 13^a will unwind, and vice versa. It will be observed that this arrangement of screens tightly closes the window-opening, so as to exclude insects, and that it does away with the annoying use of screen-frames.

I have shown the upper roller 20 secured to the frame and the free end of the screen 13 to the sash, while the lower screen 13^a is secured detachably to the frame, and its roller is carried by the sash, but it is obvious that these parts may be reversed without changing the principle of the invention.

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

1. The combination of the sash provided at or near its edges with hooks having inwardly-extending points, and at its central portion with a hook having an outwardly-extending point, and a screen connected to the said hooks, substantially as described.

2. The combination of the screen the casing on one end thereof and provided with outwardly-extending slots having lateral notches, and the spring-pressed fastening-bolts slidably mounted in the sides of the casing and provided with projections traveling in the said slots and notches, substantially as described.

CHARLES I. STILL.

Witnesses:

WARREN B. HUTCHINSON,
C. SEDGWICK.