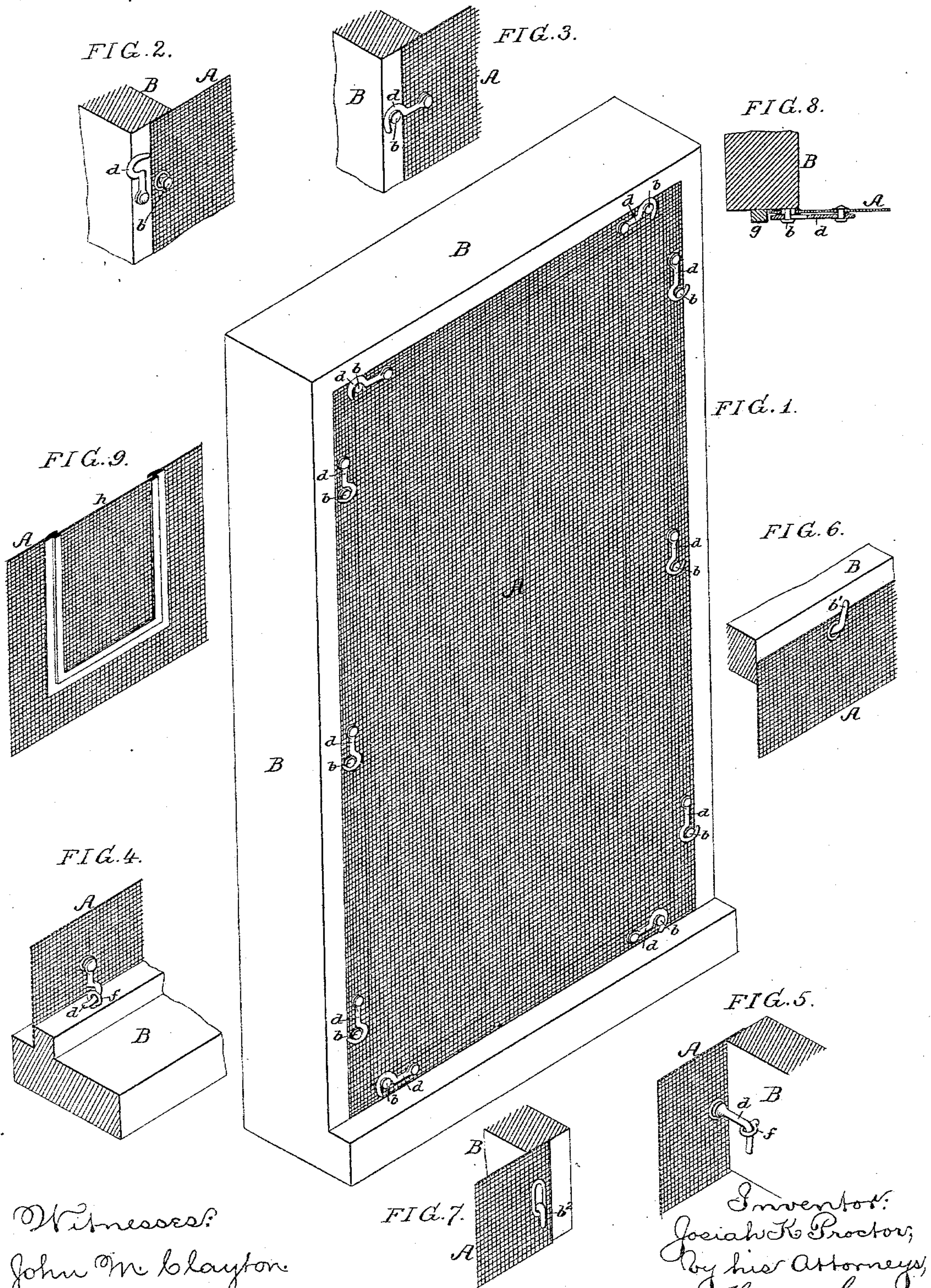


(No Model.)

J. K. PROCTOR.
WINDOW SCREEN.

No. 318,799.

Patented May 26, 1885.



Witnesses:
John M. Clayton
Harry Drury

Inventor:
Josiah K. Proctor;
by his Attorneys,
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UNITED STATES PATENT OFFICE.

JOSIAH K. PROCTOR, OF PHILADELPHIA, PENNSYLVANIA.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 318,799, dated May 26, 1885.

Application filed November 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH K. PROCTOR, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Window-Screens, of which the following is a specification.

The object of my invention is to so construct a wire screen and its fastenings that the use of the usual wooden frame can be dispensed with, and this object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a window-frame with my improved screen, showing one mode of securing the same in position; Figs. 2, 3, 4, 5, 6, and 7, views showing other modes of securing the screen; and Figs. 8 and 9, detached views illustrating other features of my invention.

In carrying out my invention I take a sheet, A, of wire-gauze, of a size sufficient to cover the entire opening of the window-frame B, or, preferably, somewhat larger than said opening, so as to permit the strengthening of the edges of the sheet by folding the same over upon the body. Adjacent to the edges of the sheet are formed a series of openings, the edges of which are preferably re-enforced or strengthened by means of eyelets. As shown in Fig. 1, these openings are adapted for the reception of headed pins *b* on the window-frame, and the screen is confined to the pins by means of hooks *d*, hung to the screen and engaging with the heads of the pins. Numerous other plans of attaching the screen to the window-frame may, however, be adopted; for instance, in Fig. 2 I have shown hooks hung to the frame instead of to the screen, and in Fig. 3 have shown the pin *b* on the frame outside of the screen, while in Figs. 4 and 5 are shown two plans of connecting the screen to the frame of the window by means of hooks *d* on the screen adapted to eyes *f* on said frame.

Fig. 6 shows an inclined pin, *b'*, on the frame adapted to the opening in the screen. This plan is adopted preferably at the top of the screen; but as the screen cannot be stretched

such pins cannot be arranged on opposite sides of the window-opening.

A hooked pin, *b²*, free to turn, may be used, as shown in Fig. 7, the hooked end of the pin being passed through an elongated opening in the screen, and then turned down out of line with the opening, so as to overlap and retain the screen.

When the fastenings are some distance apart it may be advisable to provide the window-frame with strips *g*, Fig. 8, so that in case the screen warps or buckles between the fastenings no openings will be afforded for the entrance of insects.

The screen may be applied to the frame either inside or outside of the sashes; and where outside shutters are used it is advisable to form in the screen an opening to permit ready access to the fastening devices of such shutters without loosening the screen, this opening being provided with a movable cover, which may be in the form of a slide, *h*, as shown in Fig. 9, or may be hinged and provided with any suitable form of fastening.

When it is desired to gain access to the outside of the sashes for any purpose for which the opening in the screen is not available, the lower portion of the screen may be readily released from the frame, so as to permit it to be swung outward, like a loose curtain.

When the screen is applied to the outside of the window-frame, it is preferable to place the fastening devices on the inside of the screen—as shown, for instance, in Figs. 4 and 5—in order not only that the screen may be disconnected from the inside when desired, but also to prevent the removal or loosening of the screen by persons outside of the house.

I claim as my invention—

1. The combination of a window-frame, a frameless wire-gauze screen, and devices, substantially as described, whereby said screen is detachably secured to the window-frame.

2. A frameless wire-gauze screen having openings the edges of which are strengthened by means of eyelets, as set forth.

3. A frameless wire-gauze screen having fastening-hooks hung thereto, as set forth.

4. The combination of a window-frame hav-

ing pins or projections with a frameless wire-gauze screen having hooks engaging with said pins or projections, and serving to secure the screen to the frame, as set forth.

- 5 5. The combination of a window-frame, the frameless wire-gauze screen, devices for securing the screen to the frame, and strips *g g* adjacent to the edges of the screen, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSIAH K. PROCTOR.

Witnesses:

JOHN M. CLAYTON,
HARRY SMITH.