

(No Model.)

2 Sheets—Sheet 1.

J. D. PALMER.

WINDOW SCREEN.

No. 279,882.

Patented June 19, 1883.

Fig. 1.

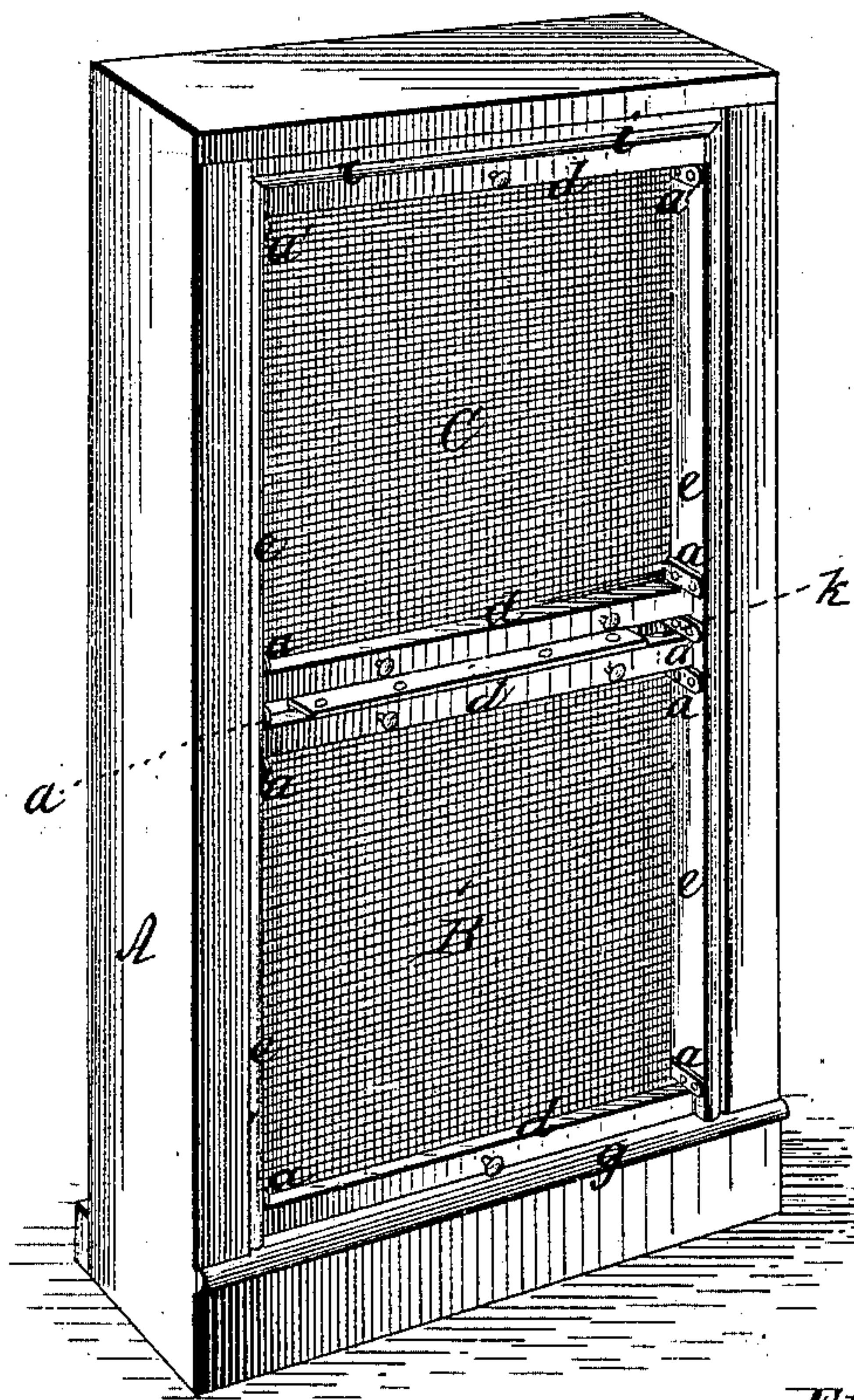


Fig. 2.

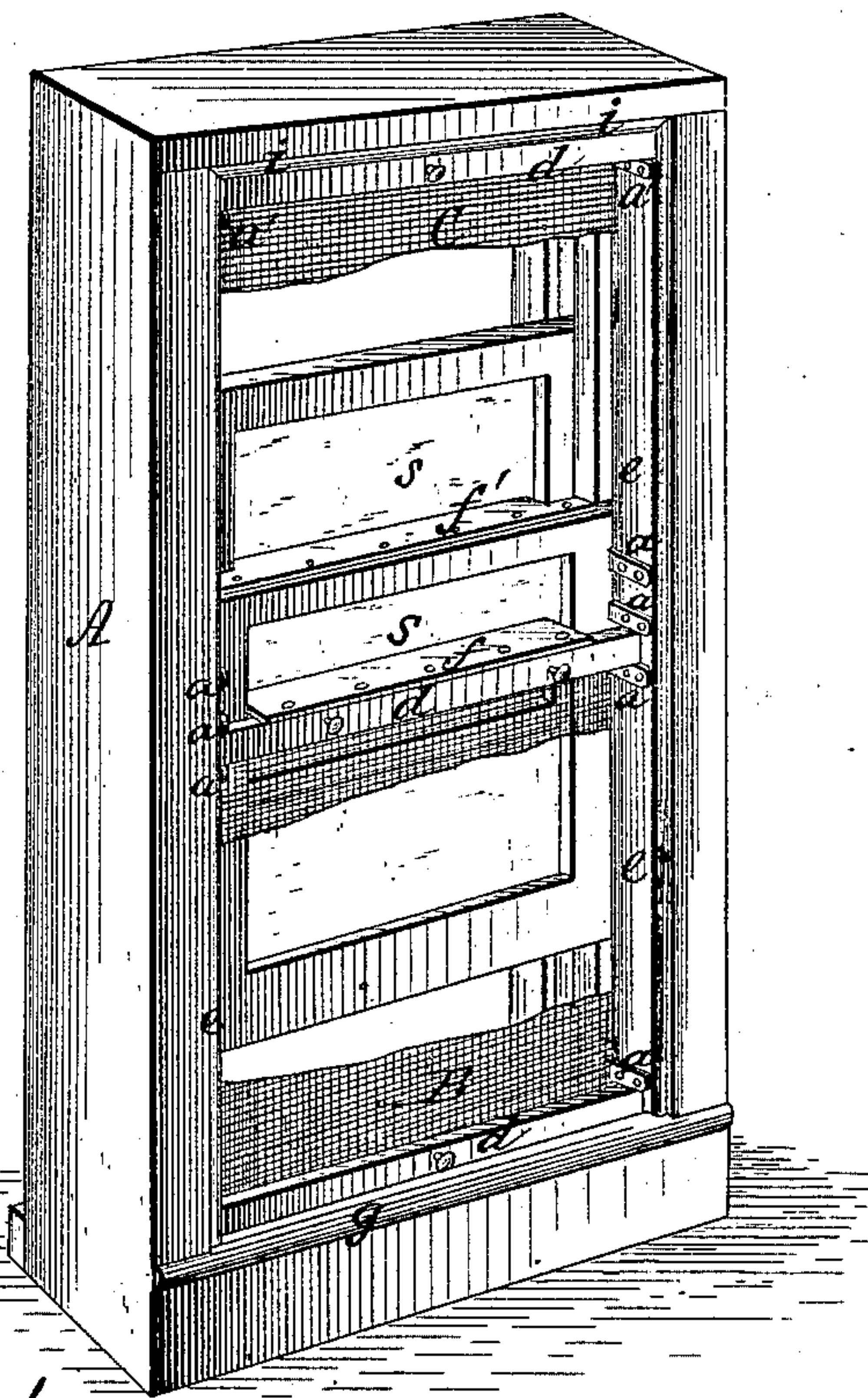


Fig. 3.

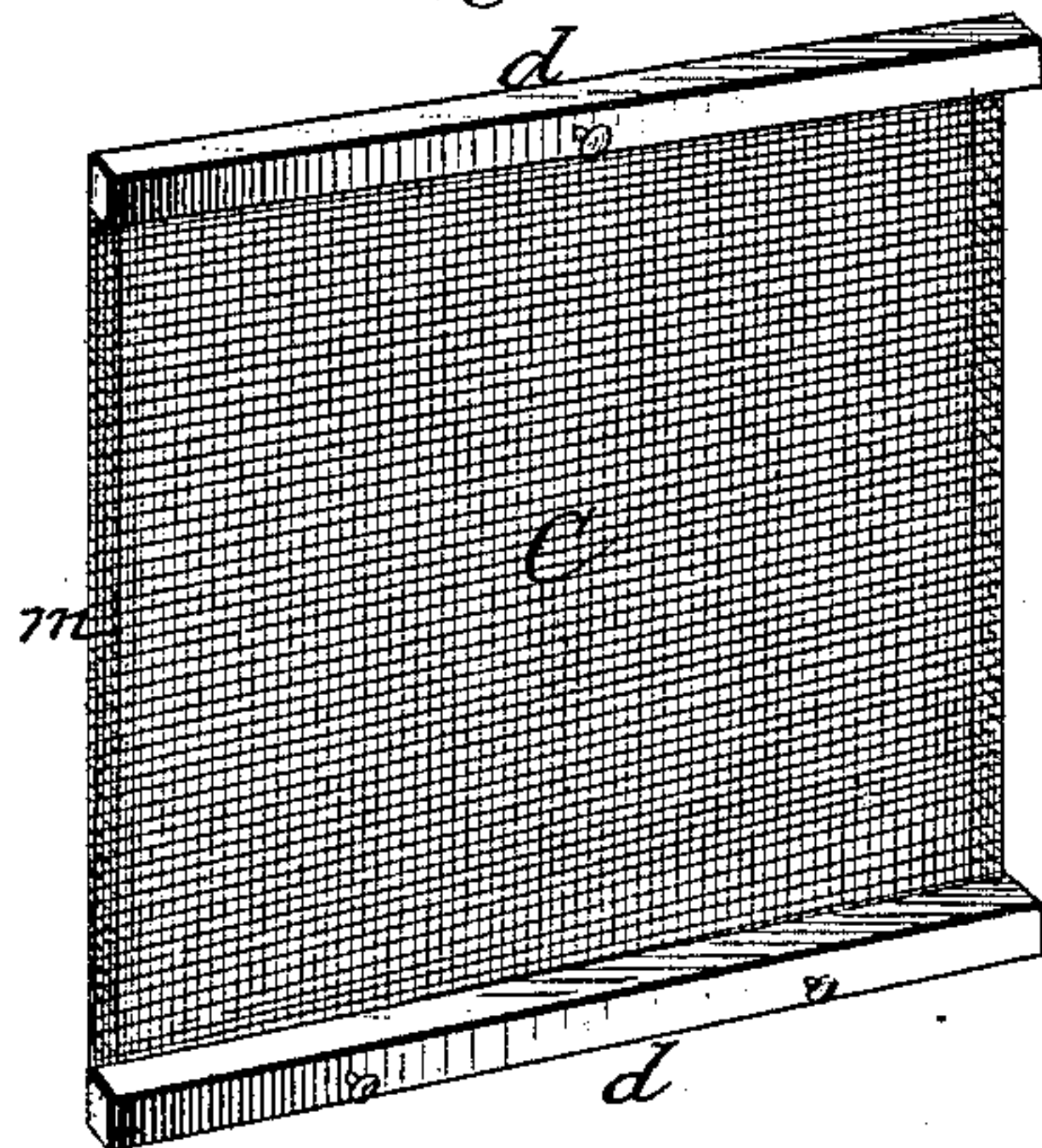


Fig. 4.

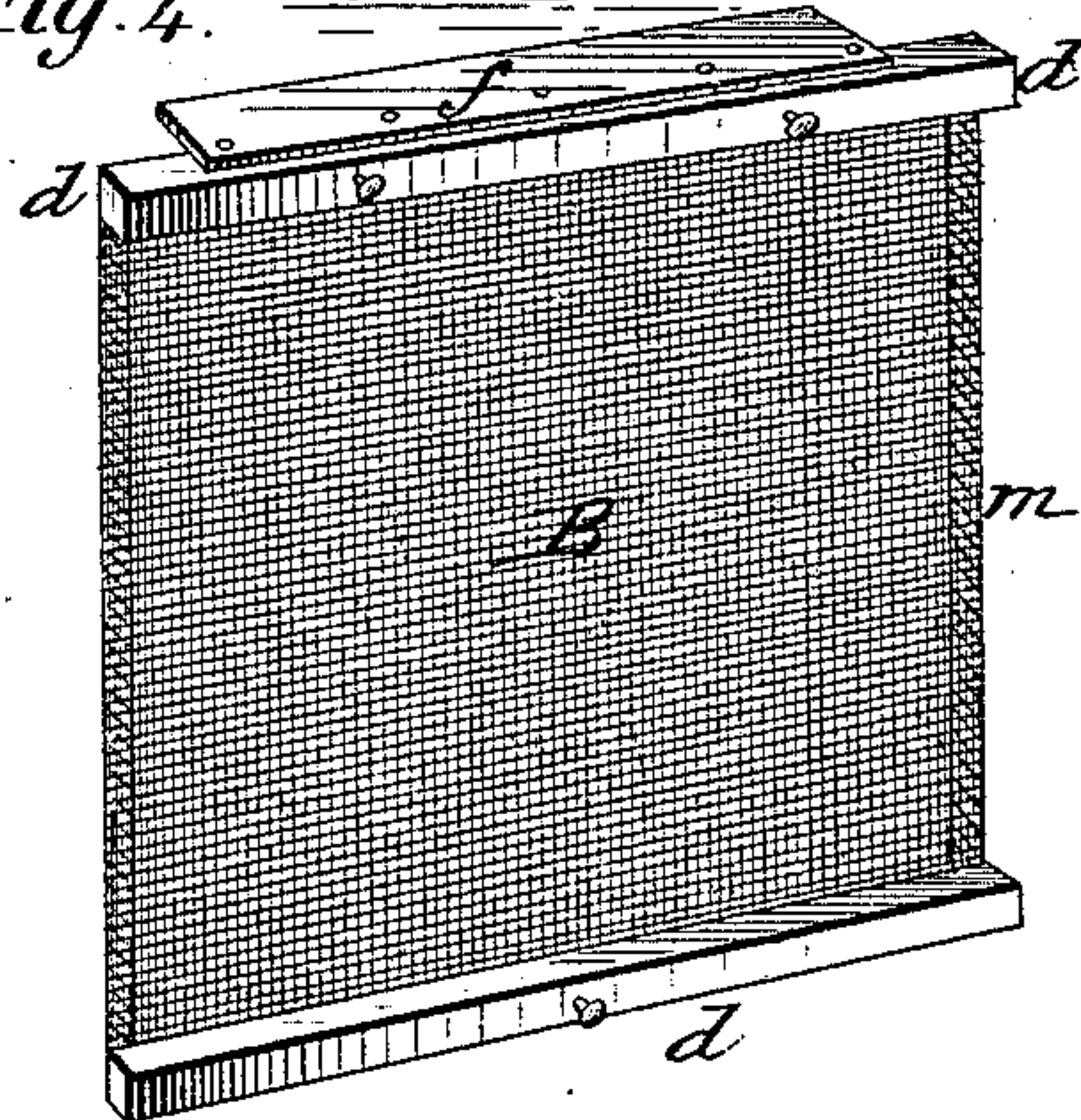


Fig. 5.



Fig. 6.



Witnesses:

J. Henry Kaiser
Carroll Brodhead

Inventor:

John D. Palmer
by Johnson & Johnson
Attys.

(No Model.)

2 Sheets—Sheet 2.

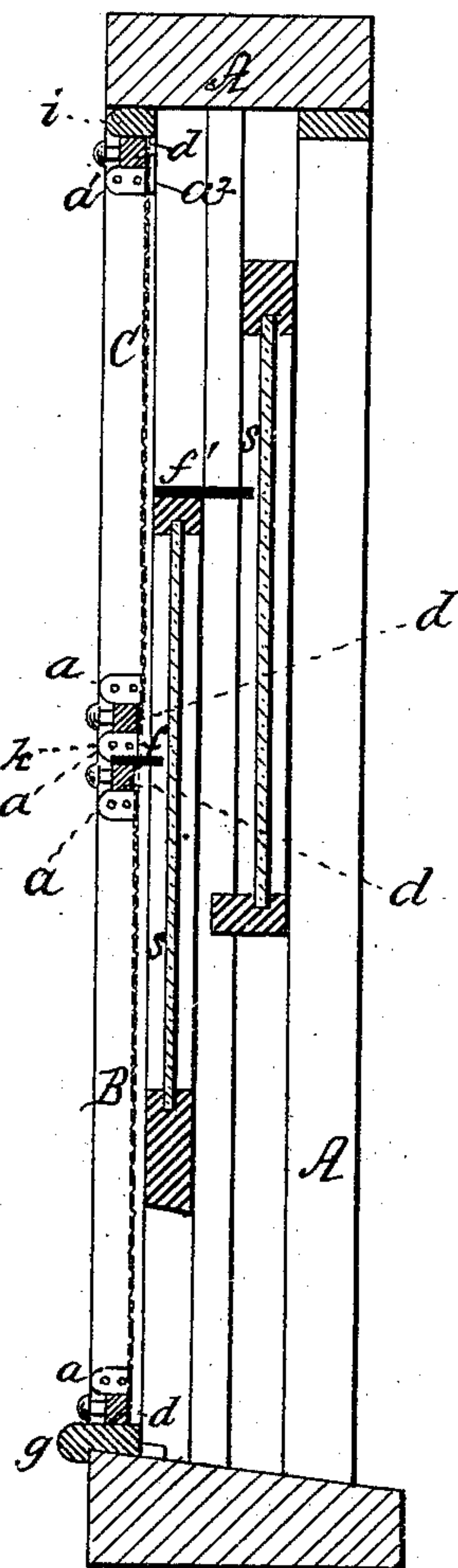
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Fig. 7.



Attest:

*Edmund Brodhead
Notwell Bartle.*

Inventor:

*John D. Palmer
by Johnson & Johnson
Atty.*

UNITED STATES PATENT OFFICE.

JOHN D. PALMER, OF PATCHOGUE, NEW YORK.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 279,882, dated June 19, 1883.

Application filed April 13, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN DEVOTION PALMER, a citizen of the United States, residing at Patchogue, in the county of Suffolk, Long Island, State of New York, have invented new and useful Improvements in Window-Screens, of which the following is a specification.

The invention relates to screens which are attached to windows for preventing the inroads of flies, mosquitoes, &c.

The objects of my improvements are, first, to produce a window-screen that shall be a perfect protection against flies and insects without regard to the elevation of the sash; second, to simplify the construction of such devices, so that they may be fitted to windows by unskilled labor; and, third, to cheapen their cost. I attain these objects by the manufacture and construction hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 represents a view in perspective of the inner side of a window-frame as having both upper and lower sash protected by my improvements; Fig. 2, a similar view, showing both upper and lower sash partially open, the fabric netting of the screens being cut away, exposing the sash and the horizontal guard-strips for additional protection when the sash or either of them are open; Fig. 3, a perspective of the screen for the upper sash; Fig. 4, a similar view of the lower screen, the upper rod of which is provided with a horizontal guard-strip adapted to fit so nearly against the window pane or panes as to prevent the ingress of any flies which may have passed upward between the netting and bottom rail of said sash when raised. Fig. 5 is a perspective of one of the lipped brackets *a'*, used in securing the top rod of the upper screen; Fig. 6, a perspective of one of the brackets *a*, which are fastened in pairs upon the beads to form holding-sockets for the screen stretcher-rods; and Fig. 7, a vertical longitudinal section of the window-frame with the screens applied, both sashes being partially open. In this view the relations of the guard-strips to the screens are plainly shown.

On the top bar or meeting-rail of the lower sash a rubber guard-strip (similar to that described in Fig. 4) is fixed, extending horizon-

tally toward the window-panes of the upper sash, so as to stop flies and mosquitoes, which might otherwise pass through the aperture between the sash when either sash is partially open.

In the manufacture of the screens for both sashes I fasten flexible netting of fabric or suitable material to top and bottom stretcher-rods, and apply them to the windows upon the inside, as will be presently described.

Referring to the drawings, A is the window-frame; B, the lower and C the upper screen. Brackets *a a a a a'* are used in securing the stretcher bars or rods *d d* to the beads *e e* of the window-frame. Upon the top of the upper stretcher-rod *d* of the lower screen, B, I tack a guard-strip, *f*, of india-rubber, felt, fabric, or folded netting, in such manner that it shall project horizontally outward and be fitted so closely to the pane or panes of glass and sash-bars as to prevent the ingress of flies and mosquitoes, which otherwise might pass between the netting screen and bottom rail of the sash and over the stretcher-rod. With this lower screen the brackets *a* are used upon both beads *e e* of the frame, as shown—one at the bottom on each side to form, in connection with the window sill or nosing *g*, seat-sockets for the lower stretcher-rod *d*, and three on each side near the meeting of the sash to form two sockets on each side, one for the upper stretcher-rod of the lower screen and one for the lower stretcher-rod of the upper screen, C, as plainly seen in Figs. 1 and 2. The sockets for the top stretcher-rod of the upper screen, C, are formed by the brackets *a'* and the cross-bead *i* of the window-frame. The bracket *a'* is illustrated in Fig. 5, and is cast or struck up with a lip, *a''*, projecting beyond its edge to form a holding or stop seat for the said top stretcher-rod. This construction is necessary, because there would otherwise be nothing for the upper stretcher-rod to rest against, the upper sash of a window running, as it does, in a separate guideway from the lower one.

To protect the opening made between the sash by the raising of the lower sash or the lowering of the upper one, I fasten a guard-strip, *f'*, similar to guard-strip *f*, above described, upon the top rail of the lower sash. Inasmuch as I have preferred this cheap and

simple construction of screen wherein the
stretcher-rods are held in sockets formed by
the brackets *a a a*, (especially near the meeting-
rails,) there would be a space, *k*, Figs. 1 and 7,
5 between the stretcher-rods of the screens, form-
ing a way of ingress for flies if either sash
were raised or lowered, and whether the top
sash be stationary or not. Thus the guard-
strips, in combination with the screens, form a
10 perfect protection. The side edges of the
screens are protected from wear and kept
straight to the sides of the window-frame by
being re-enforced with any suitable border
binding, *m*, or they may be lapped and hemmed.

15 In applying the netting or other fabric to
the stretcher-rods for the lower sash, sufficient
tension is required to produce a smooth, even
surface, which, when the screen is placed in
position in contact with the sash, is always in
20 such close juxtaposition with the bottom rail
thereof as to form a protection against flies,
whatever the elevation of the sash may be.

The screens are readily removable and re-
placeable, and their tension serves as an aid
25 to holding them in their sockets.

I design to furnish the screens ready mounted
for sale with the brackets, and strips, and
stretcher-rods, and to furnish the stretcher-

rods and accompanying parts for sale, so that
the purchaser may make any size of screen 30
and attach any desired netting.

I claim—

1. The lower screen of a window-screen, con-
sisting of fabric netting or its equivalent,
stretched on top and bottom rods, and having 35
its top rod provided with a horizontal guard-
strip, *f*, substantially as and for the purpose
described.

2. The combination of the lower screen, B,
provided with the guard-strip *f*, and the lower 40
sash of the window provided with a guard-
strip, *f'*, substantially as and for the purpose
set forth.

3. The combination, with the upper screen,
C, composed of fabric netting and top and bot- 45
tom stretcher-bars, of the brackets *a' a'*, having
the lips *a²*, whereby sockets are formed for the
upper stretcher-bar and stops to its inward
movement, as set forth.

In testimony whereof I have hereunto set my 50
hand in the presence of two subscribing wit-
nesses.

JOHN D. PALMER.

Witnesses:

S. FIELDER PALMER,
T. M. GRIFFING.