

(No Model.)

C. H. ZELLER.

COMBINED WINDOW SHUTTER, STORM WINDOW, AND SCREEN FRAME.

No. 461,007.

Patented Oct. 13, 1891.

Fig. 1.

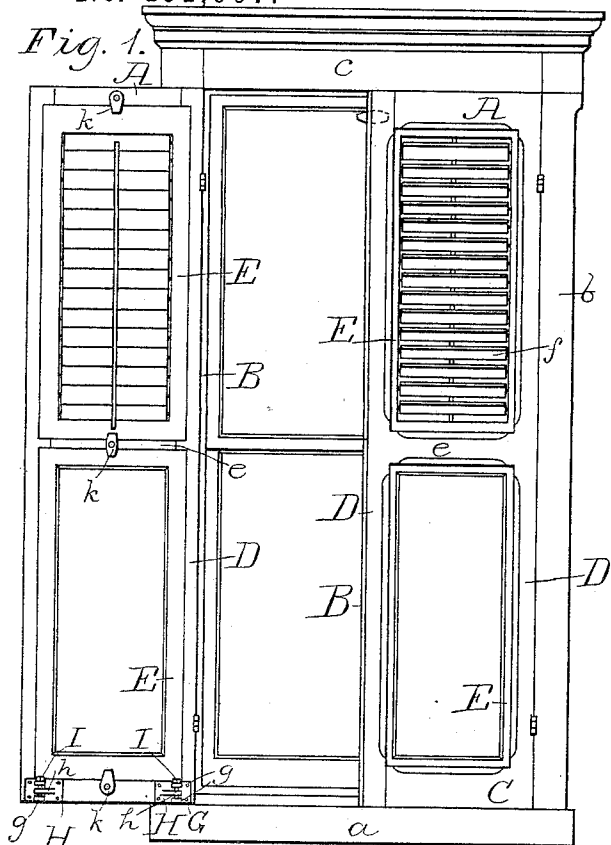


Fig. 2.

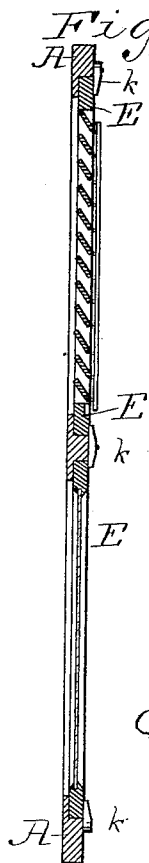


Fig. 3.

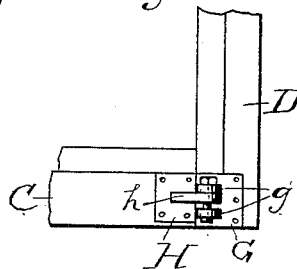


Fig. 4.

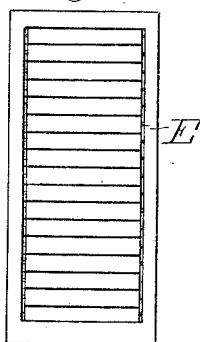


Fig. 5.

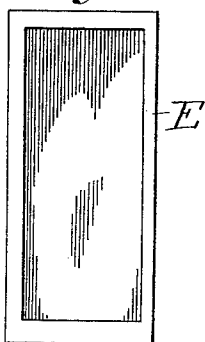
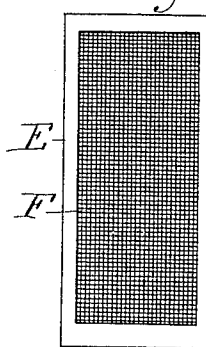


Fig. 6.



Witnesses

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CHARLES HENRY ZELLER, OF CHICAGO, ILLINOIS.

COMBINED WINDOW-SHUTTER, STORM-WINDOW, AND SCREEN-FRAME.

SPECIFICATION forming part of Letters Patent No. 461,007, dated October 13, 1891.

Application filed August 23, 1889. Serial No. 321,705. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HENRY ZELLER, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Combined Window-Shutter, Storm-Window, and Screen-Frame, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention is to provide a frame which, like the ordinary outside blinds, is hinged to one or both sides of a window-frame in which are removable shutters or storm-windows or screens, as desired, thus avoiding the necessity for the outlay annually expended on every well-appointed house for blinds or storm-windows and screens, and the annual outlay for putting up the same, each in their appropriate season, substantially as hereinafter fully described, and as illustrated in the drawings, in which—

Figure 1 is a front elevation of a window, showing my improvements applied thereto. Fig. 2 is a transverse vertical section of my invention. Fig. 3 is a detail view, and Figs. 4, 5, and 6 show, respectively, an elevation, of a shutter-frame, a storm-window sash, and a screen-frame used in conjunction with my invention.

In Fig. 1 of the drawings is shown an ordinary window-frame, consisting of the usual head-frame *c*, vertical sides *b b*, and sill-frame *a*, and within this frame is placed the window-sashes, which may be opened by sliding them vertically or laterally or by swinging them open, like doors.

B B represent rectangular frames, each consisting of a sill-piece *C*, a head-piece *A*, and vertical side pieces *D*, which preferably are connected at their centers of length by a cross-bar *e*, as shown. Each frame B is of a width corresponding to one-half the distance between the vertical sides *b* of the window-frame, and are hinged one to each of said vertical sides *b*, so that when swung closed in front of the windows, like outside blinds, they close the same. The inner adjacent edges of the head, sill, side pieces, and cross-bar of frame B are correspondingly rabbeted, and placed and secured in frames B, in such manner that their edges rest in the

rabbets just referred to, are the rectangular sashes E. These sashes E may be glazed, as shown in Fig. 5, or may be provided with shutters *f*, as shown in Fig. 4, or may be provided with screening *F*, as shown in Fig. 6.

In hot weather screens could be secured in frame B. In winter the screens could be replaced by the storm-sashes, or shutters could be placed therein, as desired.

In order to secure sashes E in frame B, I prefer to use the ordinary turn-buttons *k k*, which, as will be seen, are pivotally secured to the center of length of the head-sill and cross-bar of said frame. Any means for securing said sashes may be adopted, however, either as a temporary or permanent fastening. The head and sill pieces of frame B are adjustable slightly vertically, so that in winter-time, when the storm-sashes are secured therein, they may be made to bear against the sill and head of the window-frame to keep the snow from drifting in. To accomplish this adjustment, I secure plates *H* to the ends of the sill and head pieces, and provide the same with a lug *h*, which extends over the edge of side piece in transverse register therewith, and I secure to the side pieces, next to plates *H*, plates *G*, which have the lugs *g g* projecting therefrom so that lug *h* passes between them, and then I pass transversely through all three lugs the bolt *I*. Bolt *I* is only screw-threaded between lugs *g*, and lug *h* is tapped to engage the threads of the said bolt. When, therefore, bolt *I* is turned properly at each end of either the head or sill pieces of frame B, it adjusts it vertically, as desired.

It is immaterial, so far as my invention is concerned, whether one or two frames B are used for each window. It is immaterial how many cross-bars are used for dividing said frames into openings for the reception of sashes E, and while I prefer it, it is not absolutely necessary that frames B be rabbeted.

What I claim as new is—

1. The combination, with the herein-described window-shutter frame having vertically-adjustable sill and head pieces, and having both upper and lower rabbeted openings, of the interchangeable blind, glass, and screen frames, each having a detachable connection therewith, and each of which is fitted for inde-

pendent use in conjunction with said window-frame.

2. The herein-described window-shutter frame having side frames D and having the
5 vertically-movable sill and head pieces, plates H, having transversely-tapped lugs *h* secured on the ends thereof, and plates G, having the lug *g* secured to the ends of the said side pieces D, and bolts I, in combination

with the interchangeable blind, glass, and 10 screen frames, each having a detachable connection therewith, and each of which is fitted for independent use in connection with said door-frames, as set forth.

CHARLES HENRY ZELLER.

Witnesses:

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