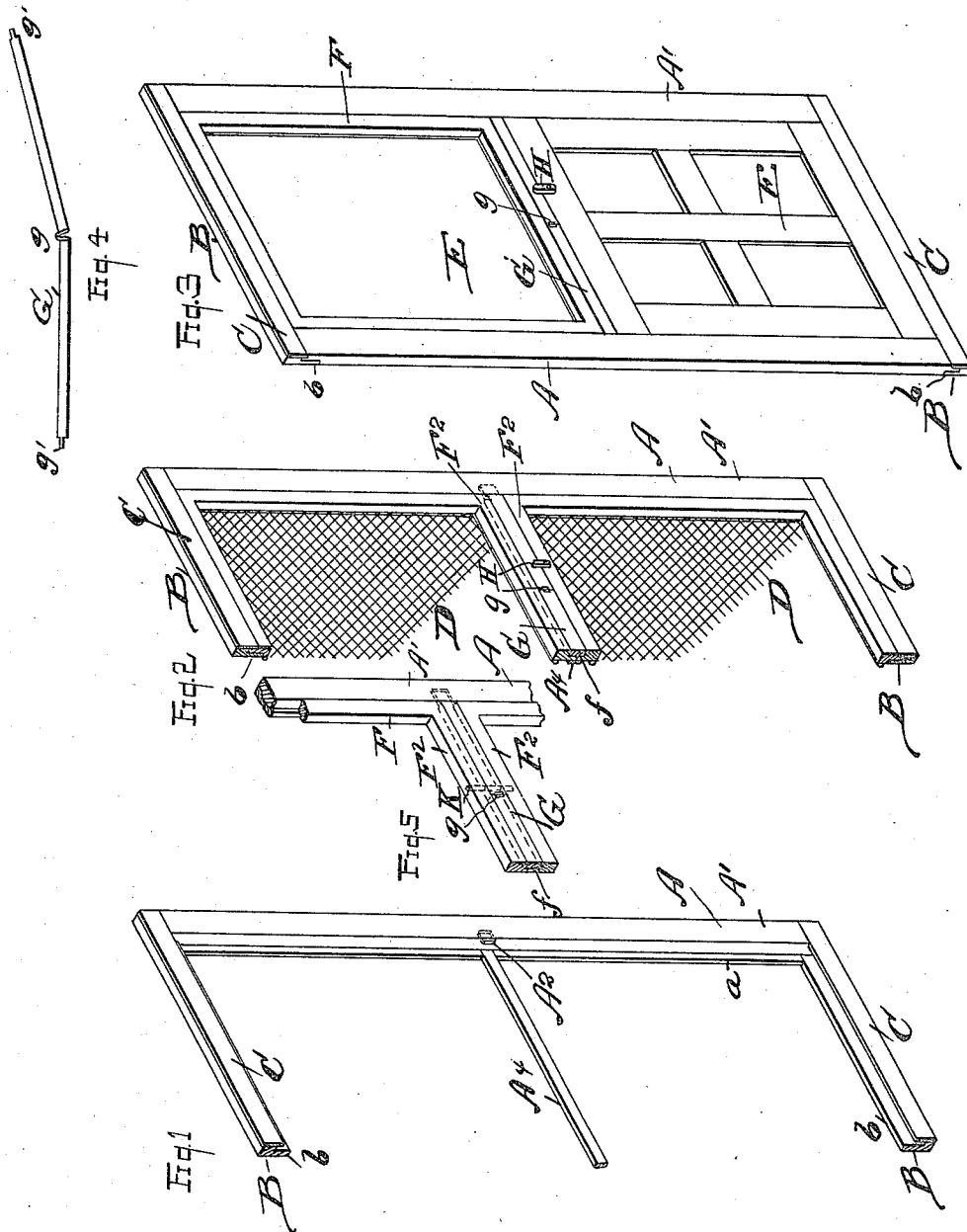


E. KLAUHN.
 COMBINED STORM AND FLY SCREEN CONSTRUCTION FOR DOORS AND WINDOWS.
 APPLICATION FILED NOV. 13, 1911.

1,063,202.

Patented June 3, 1913.

2 SHEETS—SHEET 1.



Witnesses
John A. Lebert
Grace E. Hynkroft

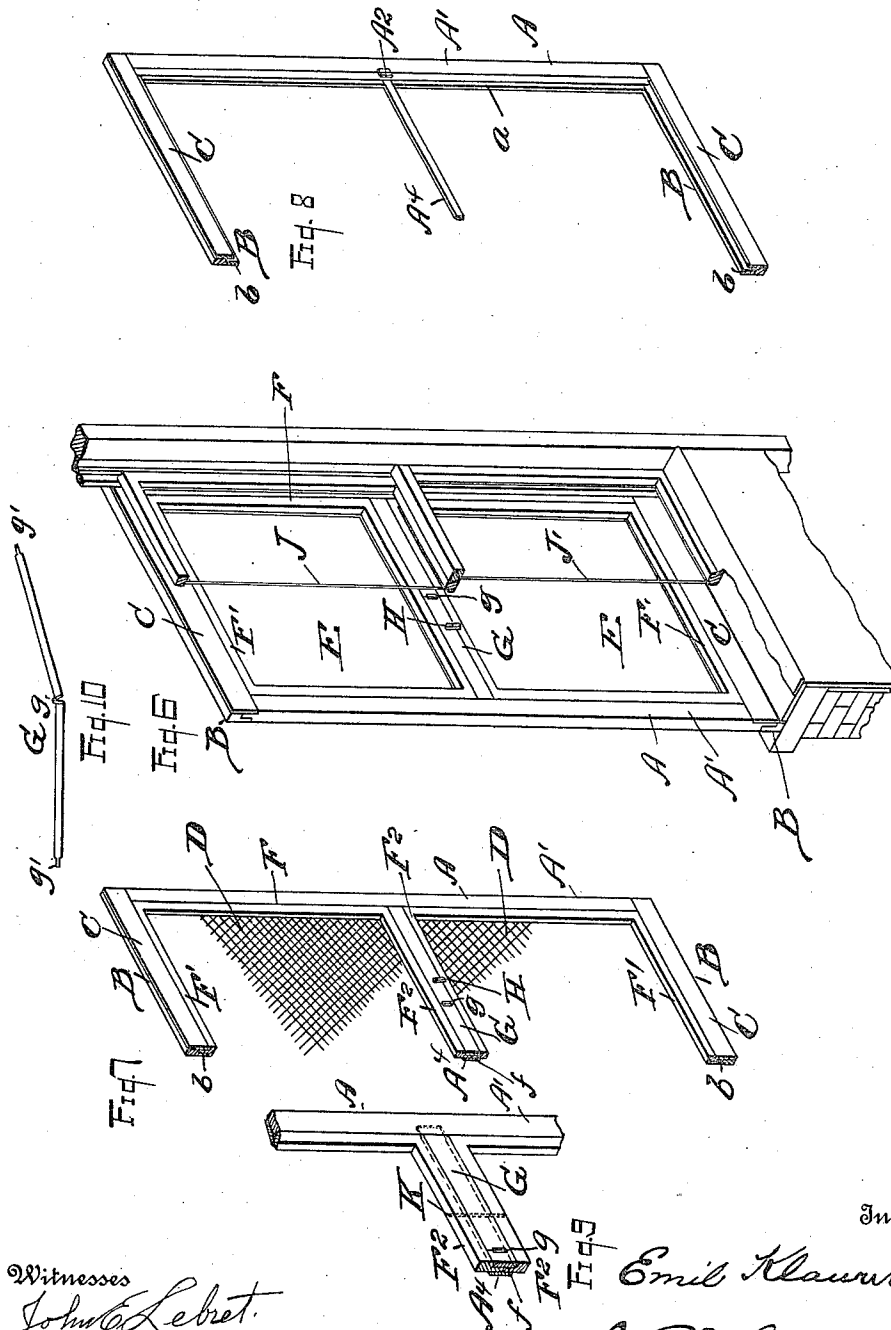
Inventor
Emil Klawuhn
 By *J. B. Thomas*
 Attorney

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Grace E. Wynkoop.

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UNITED STATES PATENT OFFICE.

EMIL KLAUHN, OF DETROIT, MICHIGAN.

COMBINED STORM AND FLY-SCREEN CONSTRUCTION FOR DOORS AND WINDOWS.

1,063,202.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed November 13, 1911. Serial No. 659,903.

To all whom it may concern:

Be it known that I, EMIL KLAUHN, citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Combined Storm and Fly-Screen Construction for Doors and Windows, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improvement in combined storm and fly screen construction for doors and windows, shown in the accompanying drawings and more particularly set forth in the following specification and claim.

The object of my invention is to provide an inclosing frame adapted to receive interchangeable screen or sash frames.

A further object is the means employed for locking the storm or screen frame in the inclosing frame.

Other advantages and improvements will hereafter appear.

In the drawings accompanying this specification:—Figure 1 is a perspective view of an inclosing frame with parts broken away to more clearly show its construction. Fig. 2 is a similar view with screen panels or frames inserted in the inclosing frame and locked in position. Fig. 3 is a perspective view of the inclosing frame with a glass and solid wood panel inserted converting it into a storm door. Fig. 4 is a plan view of the locking bar. Fig. 5 is a fragmentary perspective view of a modification showing means for locking the screen or storm frames in the inclosing frame. Fig. 6 is a perspective view of a window casing, the regular sash, and an auxiliary inclosing frame, with the storm sash in position. Fig. 7 is a perspective view of the inclosing frame,—the screen being in position,—with parts in section to show the construction. Fig. 8 is a perspective view of the window inclosing frame, with parts in section. Fig. 9 is a fragmentary perspective view of a modification showing means similar to that indicated in Fig. 5, for locking the window frames in

position. Fig. 10 is a plan of the locking bar employed to lock the sash in their inclosing frame, similar to that employed to secure the door panels in place.

Referring now to the letters of reference placed upon the drawings:—A is an inclosing frame which when used in door construction is hinged to the casing in the usual manner. It may also be hinged in window construction or secured to the casing in any suitable way.

A' are the vertical stiles of the frame rabbeted as indicated at *a* and joined together by cross pieces B, B, which are also rabbeted as shown at *b*.

C are strips secured to the cross pieces B, their inwardly projecting ends being spaced from the rabbeted portion of the cross pieces B forming a groove adapted to receive the cross bars of the frame supporting the screen D or the storm window E. The vertical members F of the storm windows or screens are rabbeted to conform to the rabbeted stiles A' of the inclosing frame as are also the cross members F' joining the vertical members F to adapt them to make a proper joint with the rabbeted cross bars B of the inclosing frame.

G is a jointed member hinged at *g* and provided with projecting tongues *g'* adapted to enter suitable mortises A² formed in the stiles A' of the inclosing frame. The abutting rabbeted portion of the central cross members F² of the storm and screen sash jointly form a recess *f* to receive the hinged or jointed bar G as clearly indicated in Figs. 2, 5, and 7 of the drawings.

H is a turn-button pivoted to one of the cross members of the screen or storm sash adapted to engage the jointed bar G to secure the latter against buckling when in position.

A⁴ is a central cross member connecting the vertical stiles A' and overlapping the joint formed by the abutting members F² of the screen and storm sash.

J, J', indicates the usual form of upper and lower sliding sash.

Having indicated the several parts by reference letters, the operation of the device will be readily understood.

Assuming that the inclosing frame is hinged to the door or window jamb, or otherwise secured to the latter, the fly screen or

storm sash may be placed in position by inserting the cross member F in the groove formed between the rabbeted portion of the cross frame and the strip C, the central cross members of the top and lower frame abutting as shown in the drawings. The tongues of the jointed member G are then inserted in the mortises formed in the stiles of the inclosing frame, the bar lying within the groove *f* formed by the central cross members of the screen and storm sash. The sections of the jointed member are then alined by compressing its central portion and the turn-button adjusted to insure the bar against buckling. In the modification shown in Figs. 5 and 9, this bar may be secured against buckling by inserting the pin K, through an aperture provided in the cross member F² and the jointed bar G.

When it is desired to transpose the screen for a storm sash, or vice versa, the jointed bar is released by adjusting the turn-button, one set of frames are then removed and the other inserted and locked in position as before.

Having thus described my invention, what I claim is:—

In a device of the character described, an inclosing frame rabbeted to receive and support abutting auxiliary frames supporting glass, wood, or wire screen panels, and mortised to receive the ends of a locking bar, abutting auxiliary frames disposed within the inclosing frame, the abutting auxiliary frames rabbeted to jointly provide a groove for the reception of the locking bar, a hinged locking bar lodged within the groove formed by the auxiliary frames, the ends of the bar being adapted to enter the mortises of the inclosing frame, and means to secure said bar against buckling when in place, whereby the auxiliary frames are held in position.

In testimony whereof, I sign this specification in the presence of two witnesses.

EMIL KLAUHN.

Witnesses:

GRACE E. WYNKOOP,
SAMUEL E. THOMAS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."