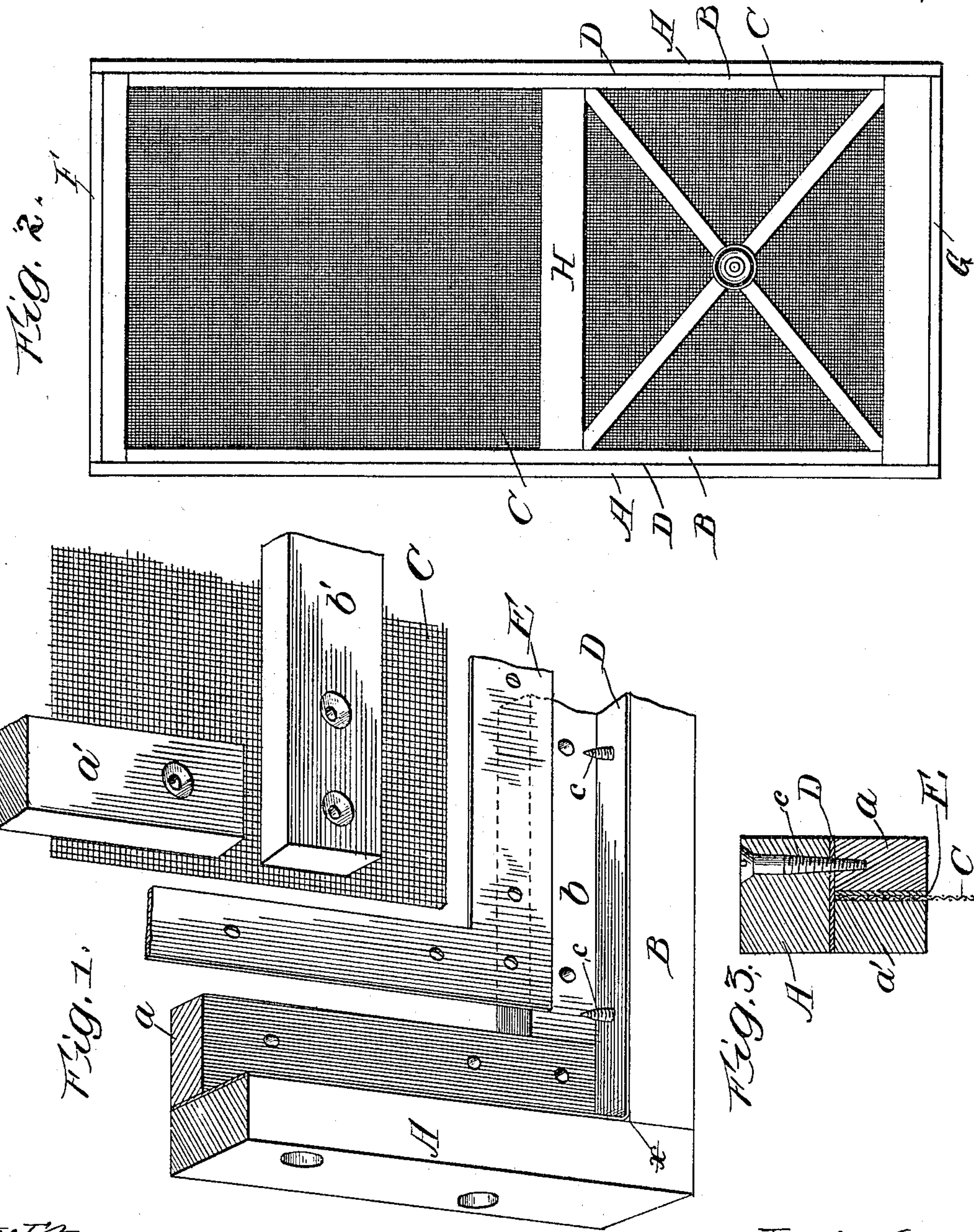


No. 819,876.

PATENTED MAY 8, 1906.

A. M. GIFFORD.
SCREEN.

APPLICATION FILED APR. 15, 1905.



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UNITED STATES PATENT OFFICE.

ALBERT M. GIFFORD, OF MANCELONA, MICHIGAN.

SCREEN.

No. 819,876.

Specification of Letters Patent.

Patented May 8, 1906.

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To all whom it may concern:

Be it known that I, ALBERT M. GIFFORD, a citizen of the United States, and a resident of Mancelona, in the county of Antrim and State of Michigan, have invented certain new and useful Improvements in Screens, of which the following is a full, clear, and exact description.

My invention relates more particularly to screen-doors and window-screens; and its object is to give rigidity to the framework of these structures and to prevent them from sagging or warping by simple means easily applied which will not materially increase the cost of the same. This I accomplish by the means hereinafter fully described and as particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a corner of my improved screen, showing the several component portions of the same in disassembled elevation. Fig. 2 is an elevation of a screen-door, showing the improvement applied thereto. Fig. 3 is a transverse section taken on one of the up-rights of the same, showing the relative position of the several parts.

In Fig. 2 of the drawings I show a screen-door embodying my invention and consisting of vertical stiles A A and top, bottom, and middle rails F, G, and H, respectively. The inner portion of the top and bottom rails are each made of two strips of wood *b* and *b'*, and the inner portion of the stiles are made of two strips of wood *a* and *a'*. I prefer to have rail-strips correspond and arranged parallel to the rail of which they constitute a part, and I likewise prefer the stile-strips to correspond and to be parallel with the stiles, although this is not essential. Between the strips *b* *b'* and the rails F and G and between the strips *a* and *a'* and the stiles A and A, I interpose a thin strip of metal D, which preferably corresponds in width to the transverse thickness of the door or window screen and entirely separates the rail-strips and the stile-strips from the inclosing rails and stiles, and the strips *a* and *a'* and *b* *b'* are secured to the stiles and rails by screws *c* *c*, which pass through suitable openings in said metallic strips D. This metallic strip D may be made of one strip bent, as shown at *x*, at the corners of the door or window; but I prefer to make it of several sections. The wooden rail-strips and stile-strips are also separated

by an interposed layer of sheet metal E, which is conterminous with metal strip D and is clamped between said strip by suitable transverse screws. Layer E is the same in width as the strips *a* *a'* and *b* *b'* and is arranged edgewise or at right angles to metal strip D. Now when strip D is tightly and securely clamped between the wooden strips and the rails and stiles of the door the strip D will prevent any lateral movement or warping of the door-frame and the metal strips E will prevent any vertical displacement of the parts of the door or sagging of the same, and thus the door is made rigid. The metal I prefer to use is tin, on account of its greater liability not to rust, although other suitable metal can be substituted therefor.

I do not wish to be confined to the use of my invention for screen-doors, as it is obvious it could be used for solid doors where wood panels are used instead of wire screening and can be used in the construction of window-sashes instead of window-screens. When my invention is confined to screen-doors and window-screens, I prefer to clamp the edges of the wire screening C between the wooden strips along with the metal layer and to employ the same screws to accomplish both purposes. I do not wish, however, to limit my invention to securing the screening in place in this manner.

What I claim as new is—

1. In a door or window screen comprising a suitable sash or frame; a transverse metal strip; and metal strips arranged at right angles thereto, parallel with the outer faces of said sash or frame, said metal strips disconnected from each other securely clamped between the wooden members of the structure of said door or window sash.

2. In a door or window screen comprising a suitable sash or frame; a transverse metal strip, and metal strips disconnected therefrom and arranged at right angles thereto, parallel with the outer faces of said sash or frame, and which are securely clamped between the wooden members of the structure of said door or window screen.

3. In a door or window screen comprising a suitable sash or frame, consisting of vertical stiles and an upper and lower rail, the inner portions of which consist of two parallel wooden strips, a transverse metal strip arranged at right angles to the outer faces of

said sash or frame, and securely clamped between the wooden strips and parallel companion stile or rail; and a metal strip securely clamped between said parallel wooden strips
5 at right angles to said transverse metal strip parallel to and mediate the broad sides of the door.

In testimony whereof I have hereunto set my hand this 6th day of April, A. D. 1905.

ALBERT M. GIFFORD.

Witnesses:

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BERTHA S. WILCOX.