

WINDOW SASH:

APPLICATION FILED NOV. 14, 1908.

929,170.

Patented July 27, 1909.

2 SHEETS—SHEET 1.

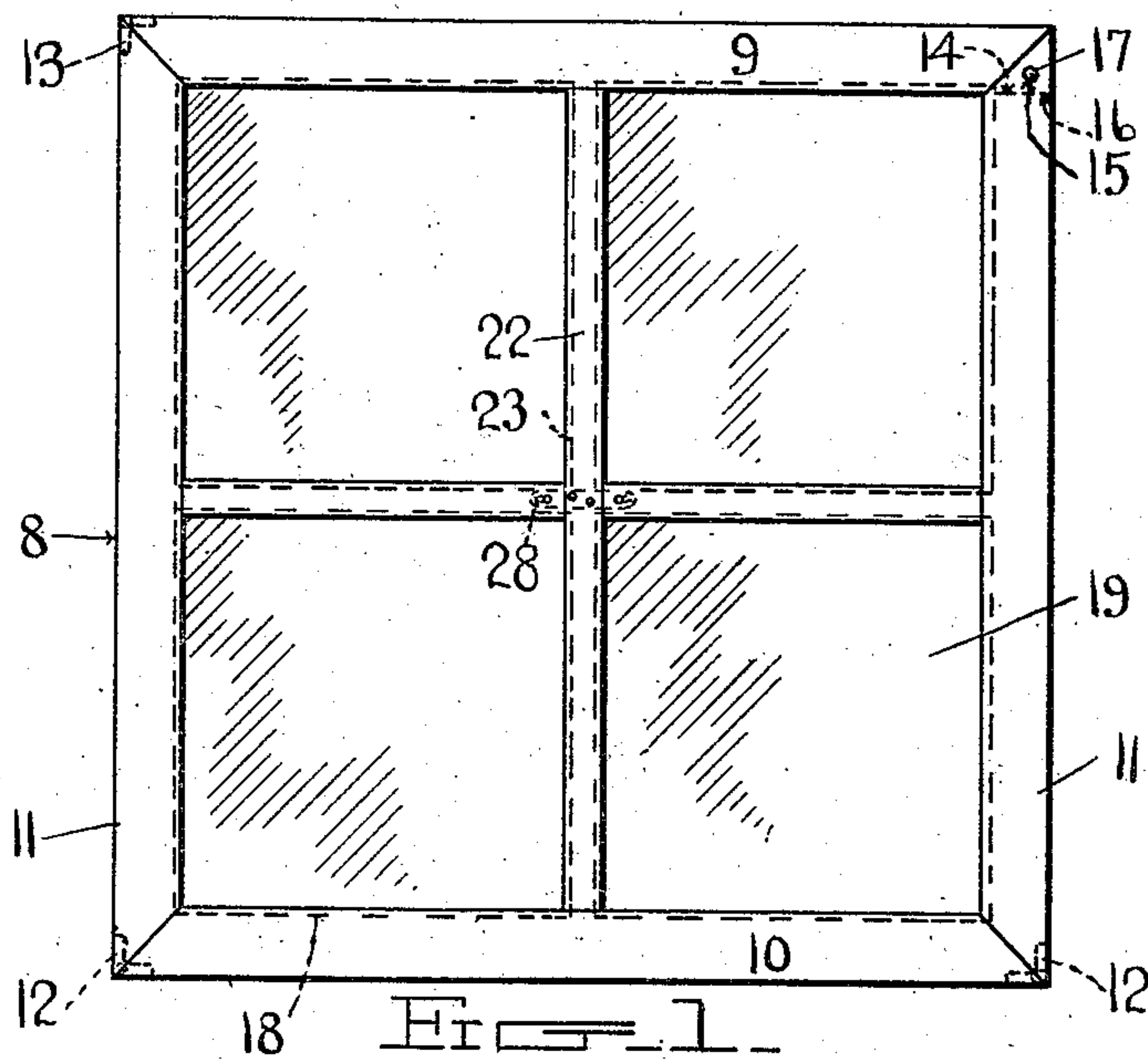
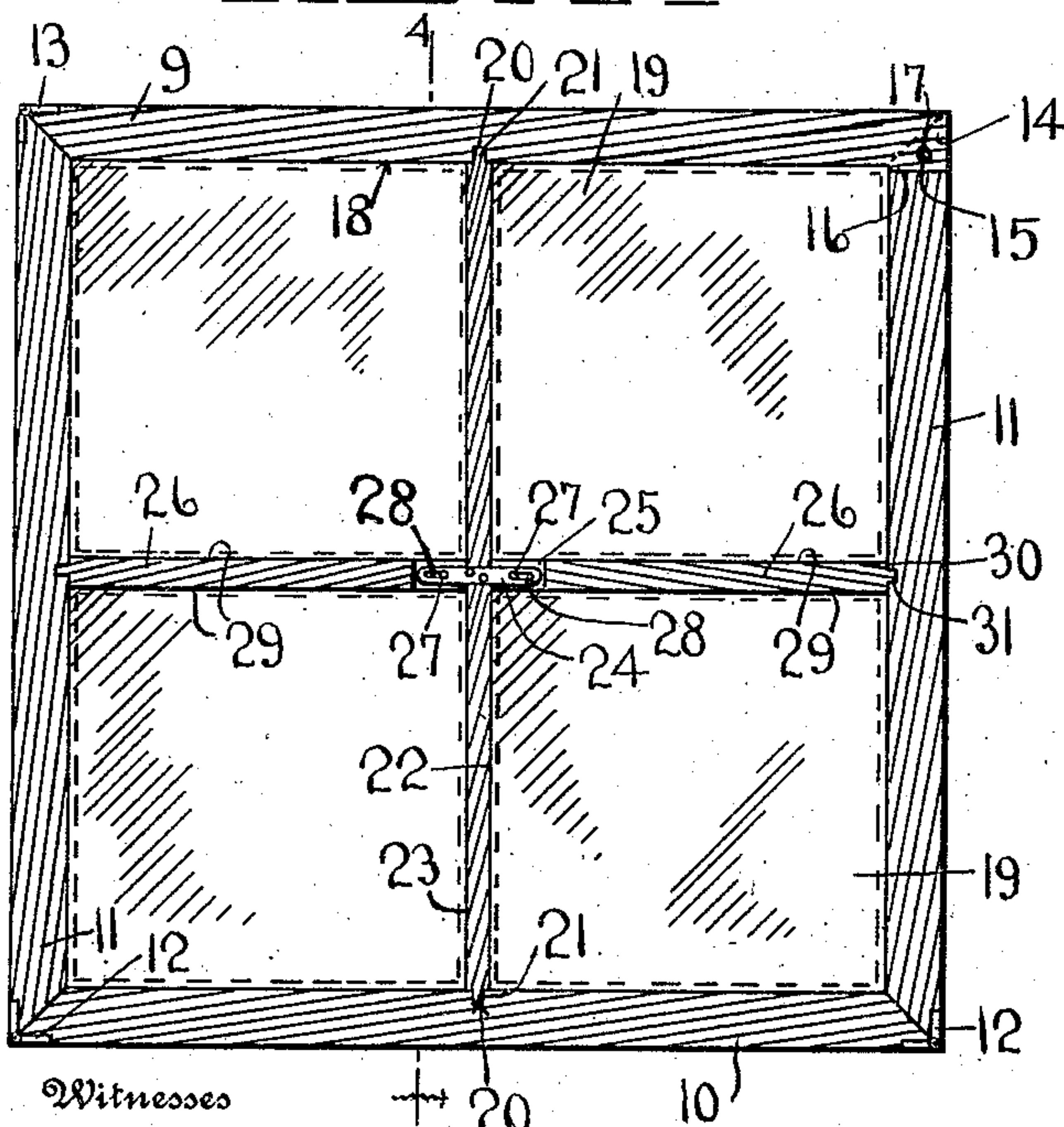


FIG. 3.

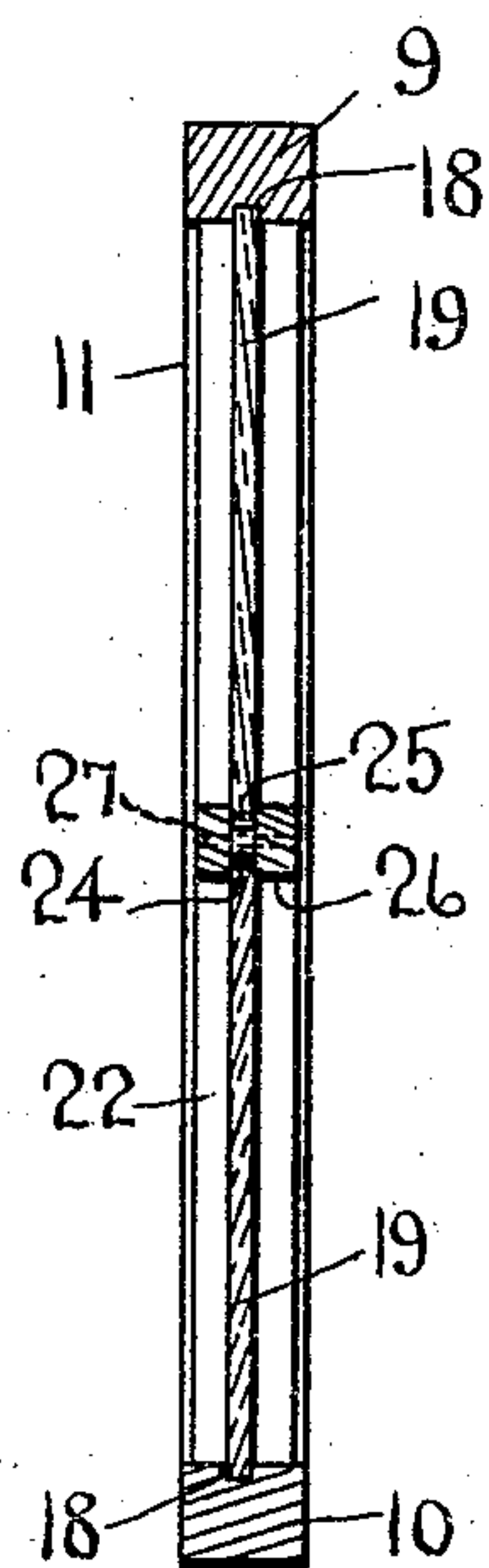


Witnesses

L.B. James

H. O. Parker

FIG. 4.



Inventor

Harvey L. Sipe

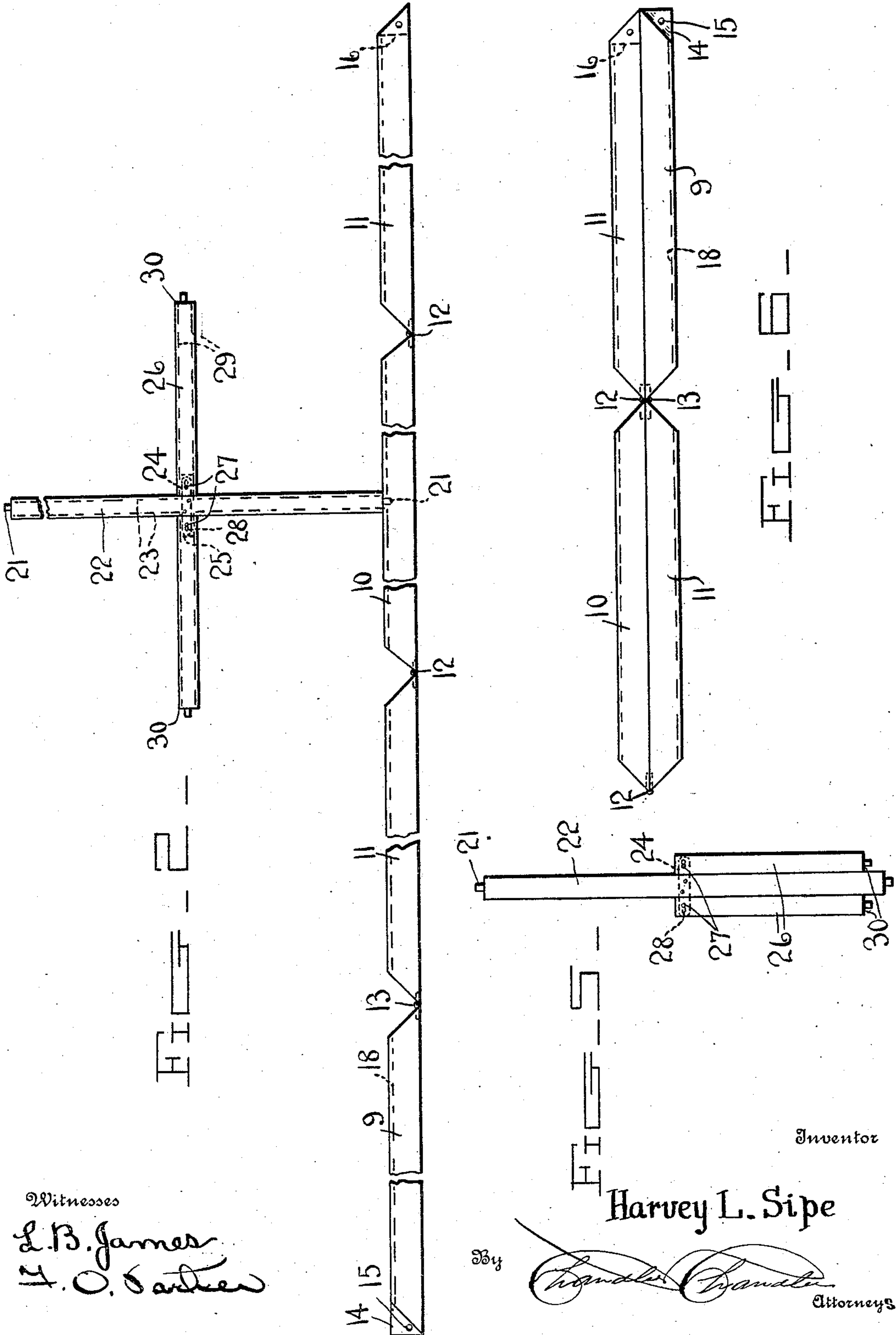
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Attorneys

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Witnesses
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UNITED STATES PATENT OFFICE.

HARVEY LESTER SIPE, OF EMIGSVILLE, PENNSYLVANIA.

WINDOW-SASH.

No. 929,170.

Specification of Letters Patent.

Patented July 27, 1909.

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To all whom it may concern:

Be it known that I, HARVEY LESTER SIPE, a citizen of the United States, residing at Emigsville, in the county of York, State of Pennsylvania, have invented certain new and useful Improvements in Window-Sashes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to window sashes and more particularly to the class of foldable or collapsible window sashes.

The primary object of the invention is the provision of a window sash in which the frame thereof, the intermediate cross bars, and the mullion are foldable to permit the collapsing of the window sash for the purpose of easy shipment thereof, and to permit the ready and quick assembling of the said sash for use.

Another object of the invention is the provision of a window sash in which the glass panes may be quickly removed or replaced without the use of putty by forming the sash with a plurality of hinged sections and means for securing the said sash in a rigid position.

A further object of the invention is the provision of a window sash which is simple in construction, thoroughly efficient in operation and inexpensive in the manufacture.

With these and other objects in view the invention consists in the construction, combination and arrangement of parts or elements as will be more fully hereinafter described and as illustrated in the accompanying drawings which disclose the preferred form of embodiment of the invention, and particularly defined in the appended claims.

In the drawings: Figure 1 is a side elevation of a window sash constructed in accordance with the invention. Fig. 2 is a side elevation of the window sash with its stiles and rails shown in an open position. Fig. 3 is a sectional view in a plane passing centrally through the length and width of the sash. Fig. 4 is a sectional view on the line 4—4 of Fig. 3. Fig. 5 is a side elevation of the cross bars folded upon the mullion and detached from the window sash. Fig. 6 is a side elevation of the frame of the sash in a folded position.

Similar reference characters indicate cor-

responding parts throughout the several views in the drawings.

In the drawings the numeral 8 designates generally the window sash comprising top and bottom rails 9 and 10 and to the said bottom rail is connected at opposite extremities thereof stiles 11 which latter are united to the bottom rail by hinges 12 which permit the stiles to be folded in two directions. Connected to one of the stiles 11 by a hinge 13 is the top rail 9 which latter has its free end formed with a tenon 14 containing an opening 15 and which tenon is adapted to engage a slot 16 formed in the free end of the stile 11. The said tenon end 14 of the top rail 9 is secured in the slotted end of the stile 11 by a detachable fastener member 17 which latter when removed will permit the folding of the top and bottom rails and the stiles as the occasion may demand.

In the stiles 11 and top and bottom rails 9 and 10 respectively, at their inner edges are formed longitudinal grooves 18 which latter are adapted to receive the edges of glass panels or panes 19. In the top and bottom rails 9 and 10 at a central point intermediate of their ends are formed sockets 20 receiving the reduced ends 21 of a mullion 22 the latter having in opposite edges grooves 23 adapted to receive the edges of the panes or panels 19 when the same are mounted in the window sash.

At a central point intermediate the ends of the mullion 22 and projecting from opposite sides thereof are rigid extension plates or ears 24 the latter slidably fitted in bifurcations 25 formed in the inner ends of cross bars or rails 26 and intersected by laterally projecting pins 27 engaging slots 28 formed in the outer ends of the extensions 24 and in this manner the said cross bars or rails 26 are permitted to fold upon the mullion 22 when the latter is detached from the window sash. In opposite edges of the bars or rails 26 are grooves 29 to receive the edges of the glass panes or panels 19 so as to hold the same in a rigid position in the window sash. The free ends of the cross bars or rails 26 are reduced as at 30 to engage or enter openings or sockets 31 contained in the stiles 11 so that the said cross bars or rails will be held against displacement after the setting up of the window sash.

When it is desired to remove the panes or panels 19 from the window sash 8 it is only

necessary to detach the fastener member 17 which will free the top rail 9 from the stile 11 and by swinging this top rail outward the uppermost panes or panels can be readily
5 and quickly removed. Should it be desired to remove the lowermost panes or panels 19 the stiles 11 are swung outwardly to disengage the same from the ends of the cross bars or rails 26 whereupon the said panes can be
10 removed.

In shipping the window sash it is of course understood that the panes or panels are detached or removed therefrom and the stiles and top and bottom rails are swung into parallel relation to each other. The mullion
15 22 having been previously detached it is only necessary to swing the cross bars in parallel relation thereto whereupon the entire window sash has been collapsed and is in a compact manner for shipment.
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What is claimed is—

1. A window sash of the class described comprising top and bottom rails, stiles hinged to the bottom rail, the said top rail having
25 one end hinged to one of the stiles, the other stile containing a slot in its free end, a tenon

formed on the free end of the top rail and adapted to engage the slot in the stile, means for fastening the tenon in the slot, a mullion detachably connected to the top and bottom
30 rails, and cross bars hinged to said mullion and detachably engaging the stiles.

2. A window sash of the class described comprising top and bottom rails, stiles hinged to said top and bottom rails, the said
35 stiles and top and bottom rails containing grooves to receive glass panels, and means for detachably securing one end of the top rail to one end of one of the stiles.

3. A window sash of the class described 40 comprising a frame having a plurality of hinged sections and containing grooves in one edge to receive the edges of glass panels, a mullion detachably mounted in the frame, and cross bars hinged to said mullion and de- 45 tachably engaging the frame.

In testimony whereof, I affix my signature, in presence of two witnesses.

HARVEY LESTER SIPE.

Witnesses:

CURTIS A. SIPE,
MYRTLE E. ROLAND.