

(No Model.)

T. SHARP.
Window Sash.

No. 234,078.

Patented Nov. 2, 1880.

Fig 1.

Fig 2.

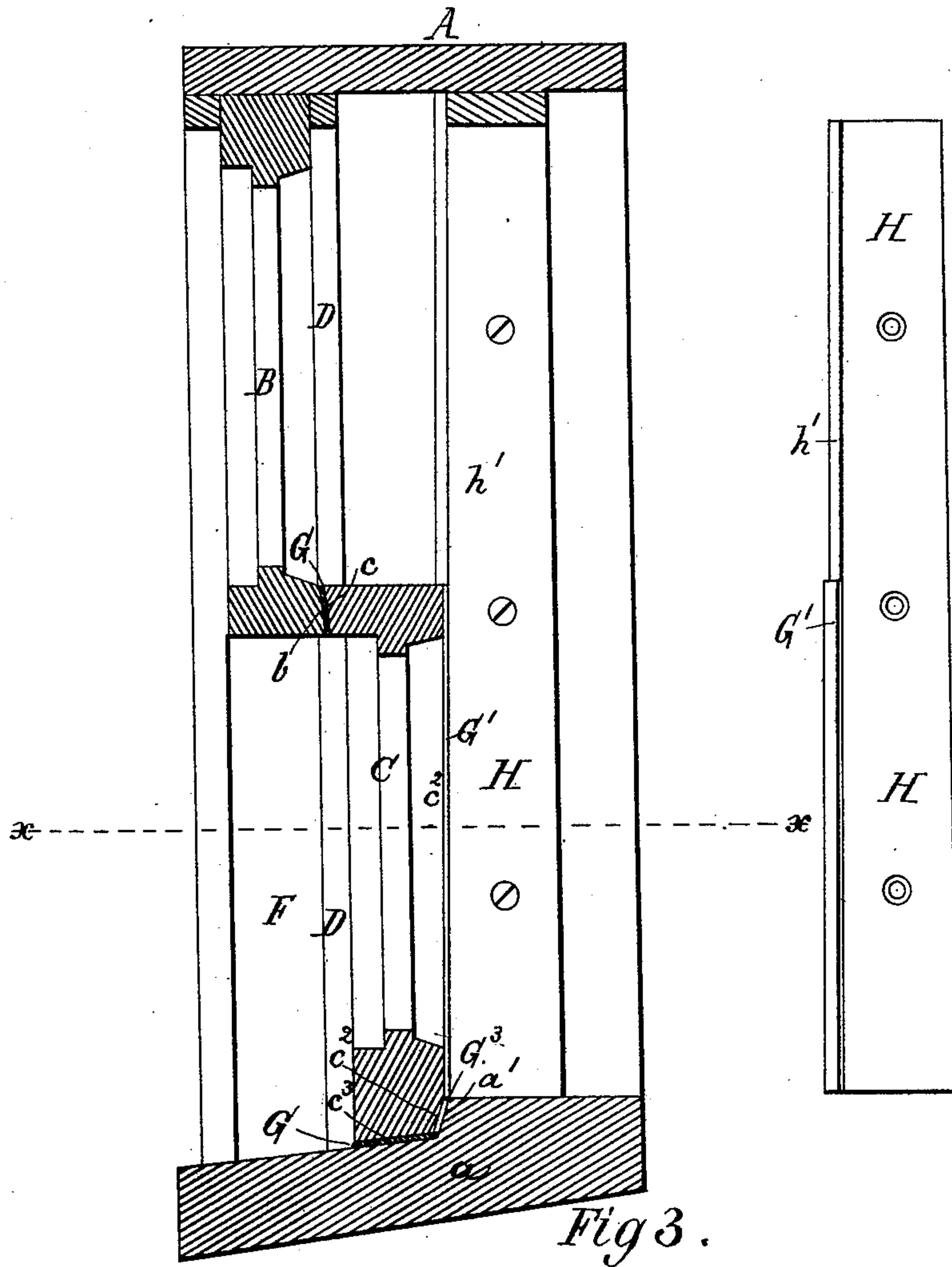
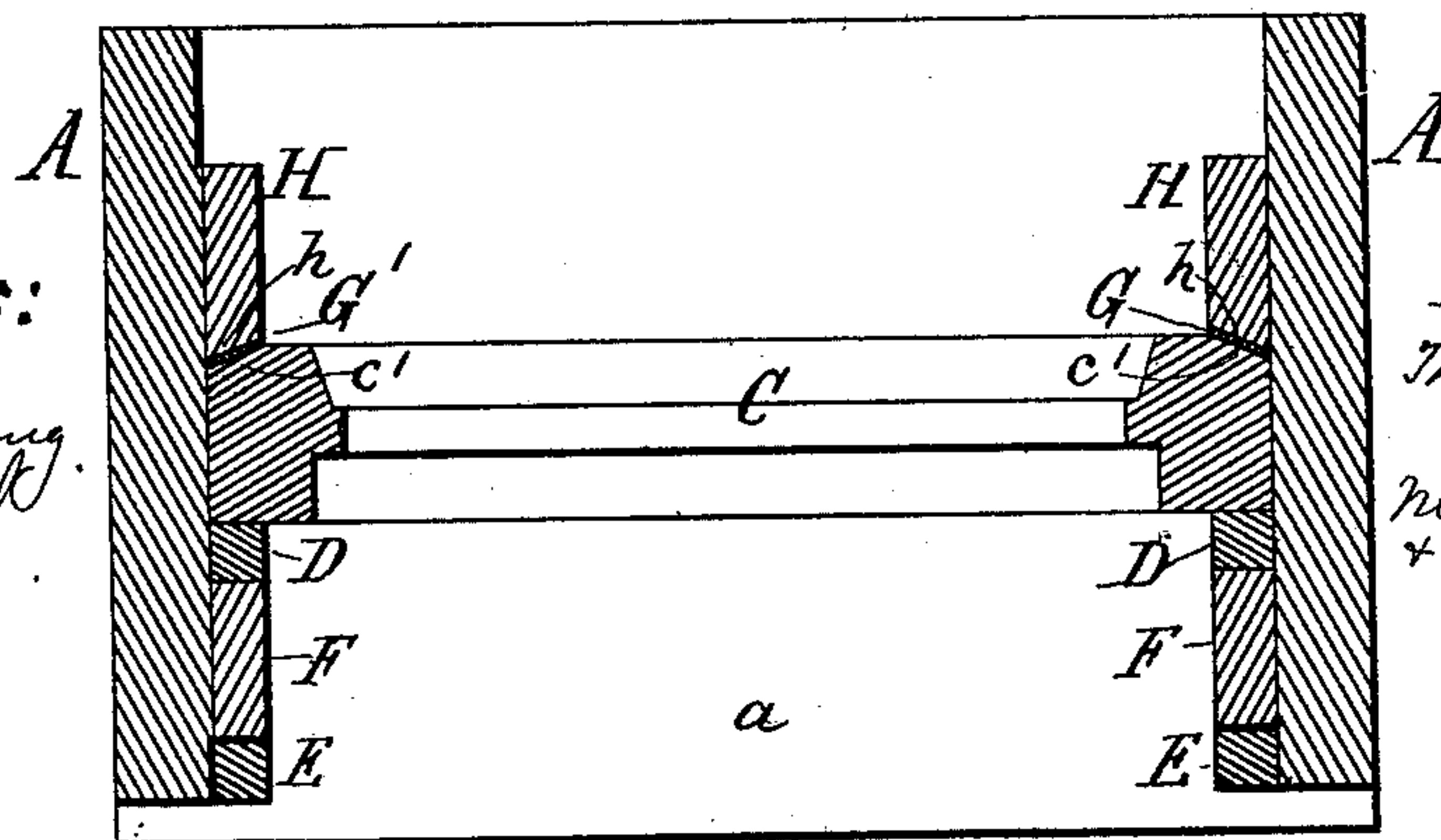


Fig 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

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WINDOW-SASH.

SPECIFICATION forming part of Letters Patent No. 234,078, dated November 2, 1880.

Application filed September 15, 1880. (No model.)

To all whom it may concern:

Be it known that I, THOMAS SHARP, of Fort Yates, in the Territory of Dakota, have invented certain new and useful Improvements in Window-Sashes and their Frames, of which the following is a specification.

My invention consists, first, in a window having a sliding sash or sashes with horizontally and downwardly beveled stiles, and also horizontally and downwardly inclined stops, whereby a wedging fit is secured between the sash or sashes and the stops when the sash or sashes are closed and a free sliding movement permitted while the sash or sashes are being opened; second, in a window having a lower sash provided with stiles beveled horizontally and downwardly, and with an extension on its upper rail, which is beveled, an upper sash provided with a beveled extension on its lower rail similar to that on the lower sash, and side stops beveled horizontally and inclined downwardly to correspond to the stiles of the lower sash; third, in a window which comprises in its construction sashes having horizontally and downwardly beveled stiles, a frame having horizontally beveled and downwardly inclined side stops, a sill with beveled stop, beveled rails on the sashes, and packing-strips, whereby, when the sashes are closed, a wedging packed joint at the sides, bottom and parting rail of the sashes is secured.

In the accompanying drawings, Figure 1 is a vertical central section of my improved window. Fig. 2 is an elevation of one of the inner vertical sash-stops. Fig. 3 is a horizontal section in the line *xx* of Fig. 1.

Similar letters refer to similar parts throughout the several views.

A represents a window-frame; B, the upper, and C the lower, sash. The upper sash, B, is fixed between a center stop, D, and outer stop, E, of ordinary construction, and rests upon a projecting portion, F, between the center and outer stops. The lower rail of the upper sash, B, has an inward upward beveled extension, *b*, which fits an outward downward beveled extension, *c*, upon the upper rail of the lower sash, C. The beveled extension *c* is provided with a covering of list or other suitable mate-

rial, G, which serves to render the joint between the extensions *b c* air-tight when the lower sash is moved down.

The outer bearing portions of the stiles of the lower sash are beveled off horizontally, as at *c'*, and also vertically, the vertical bevel being in a downward direction, as at *c''*, Fig. 1. The two inner side stops, H, are beveled off horizontally, as at *h*, and are inclined vertically, as at *h'*, the said bevels and inclines coinciding with the horizontal and vertical bevels upon the stiles of the lower sash. The inclined sides *h'* are covered with list G', or other suitable material, to the height of the lower sash, whereby an air-tight joint is effected.

The sill *a* of the frame is provided with a stop, *a'*, which is beveled off or outwardly inclined, and in front of which a strip of list, G², is fastened to the sill. The lower rail of the lower sash is beveled off, as at *c''*, in accordance with the beveled stop *a'* of the sill, and its bottom face, *c''*, rests upon the list G² when the sash is moved down.

The end portions of the beveled stop *a'* are provided with a list covering or packing, as at G³, against which the beveled portion *c''* of the lower sash bears when the sash is down.

When the lower sash is moved down upon the window-sill all the beveled and inclined portions of the window sash and frame will meet and the lower sash become firmly wedged against the upper sash, the vertical stops, and the lower stops of the sill, and neither draft nor cold air will find their way into the room. When the lower sash is raised it becomes at once free and easy to move, as its play between the stops increases the higher the sash is raised.

I have shown and described a rigid upper sash; but it is evident that when a movable upper sash is used the upper sash can be constructed in a manner similar to that of the described lower sash, with this difference, that the vertical inclines of the stops must wedge upwardly.

The construction of my window is so simple that the ordinary or general features of the window frame and sashes are not interfered with, and therefore I can apply my improve-

ments on old windows without cutting down and weakening the sash or the window-frame, as is required in other inventions for similar purposes, and with new windows the full illumination-space in a given-sized sash is retained without widening the sash and window-casing frame, which is not possible with those plans which employ beveled tongues and grooves for effecting the objects herein set forth.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a window, the combination of a sliding sash having horizontally and vertically beveled stiles, as at c' c^2 , and horizontally-beveled and vertically-inclined stops, as at h h' , to

match, substantially as and for the purpose set forth.

2. The lower sash, C, having a beveled extension, c , on its upper rail, and an upper sash, B, having a similarly-beveled extension, b , in combination with the stiles, beveled as at c' c^2 , and inclined and beveled stops, as at h h' , substantially as and for the purpose set forth.

3. The packings G G' G^2 G^3 , in combination with the wedging-surfaces b , c , c' , h , h' , a' , c^2 , and a of the frame A, stops H, and sash G, substantially as and for the purpose set forth.

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Witnesses:

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