

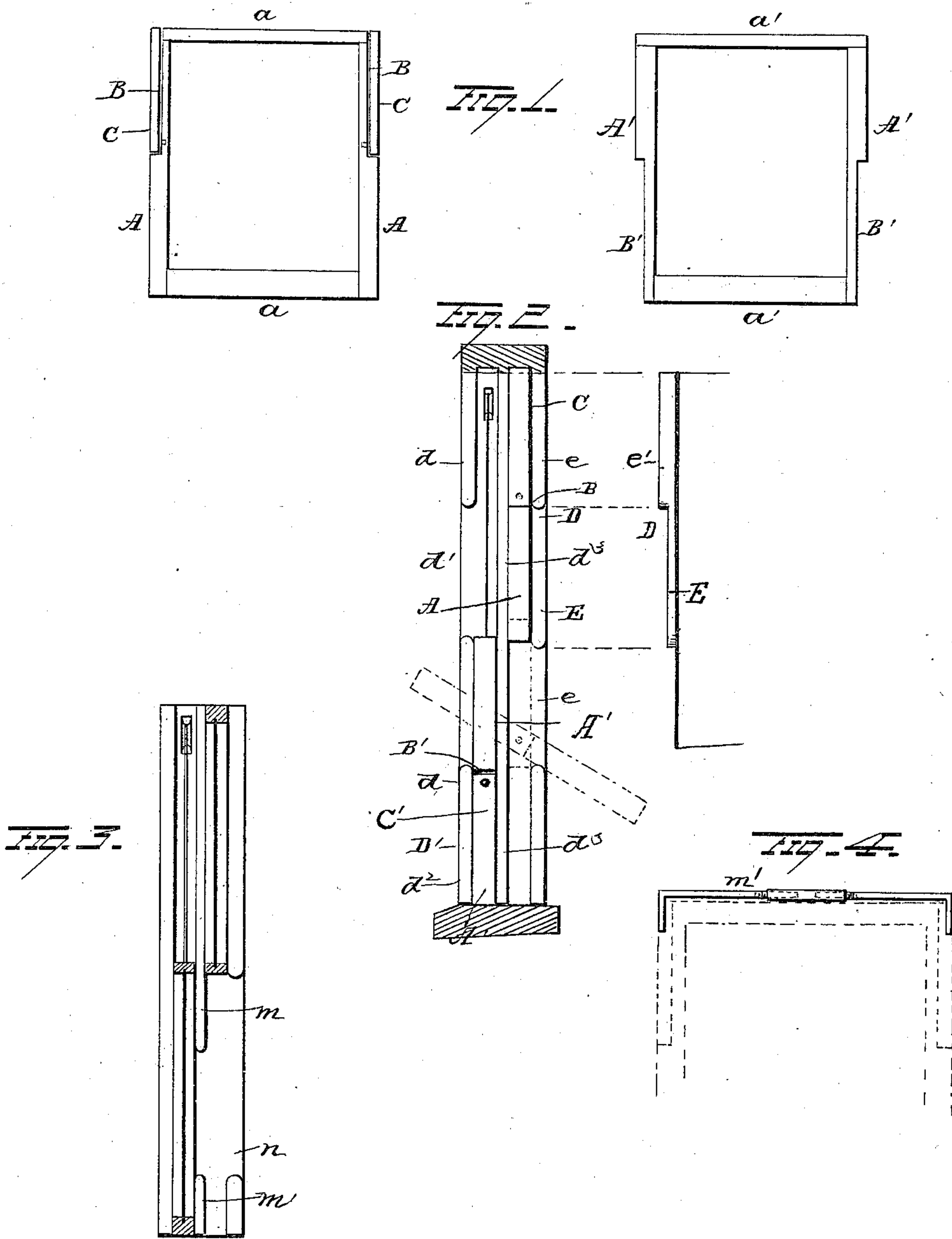
(No Model.)

G. H. KING.

WINDOW.

No. 363,397.

Patented May 24, 1887.



WITNESSES
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UNITED STATES PATENT OFFICE.

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WINDOW.

SPECIFICATION forming part of Letters Patent No. 363,397, dated May 24, 1887.

Application filed June 12, 1886. Serial No. 204,992. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HENRY KING, of Kansas City, in the county of Jackson and State of Missouri, have invented certain new and
5 useful Improvements in Windows; 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.

10 My invention relates to an improvement in windows, and more particularly to windows in which the sashes are adapted to tilt.

The object is to provide a more simple and less expensive construction of parts, to overcome the lateral play of the sash, to provide
15 weather-stops fixed permanently to the jambs, and to admit of the use of inside stops or a parting-rod, according to the construction, of the full length of the window and of ordinary
20 finish.

With these ends in view my invention consists in certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

25 In the accompanying drawings, Figure 1 is a front or rear view of the upper and lower sashes. Fig. 2 is a vertical transverse section through the frame, showing the sashes and stops in position, one of the sashes being tilted in
30 dotted lines. Fig. 3 is a similar view of the frame and sashes, showing a modified arrangement of stops; and Fig. 4 is a view of one of the cross-bars employed for connecting the guide-sections.

35 A A represent the side rails and *aa* the cross-rails of an upper window-sash, and A' A' the side rails and *a' a'* the cross-rails of a lower sash. The upper portions of the side rails, A, are cut away, as shown at B, and the lower
40 portions of the side rails, A', as shown at B', for a distance equal to one-half their length, (more or less.) The cut-away portions B B' are supplied by sections C C', to which are pivotally secured the rails A A'. When cords and
45 weights are used to hold the sashes elevated and assist in elevating them, the outer faces of the sections C are grooved, as in ordinary sashes.

The window-frame preferably consists of a half-frame, D, surrounding the top and sides
50 of the upper sash, and a reversed half-frame,

D', surrounding the bottom and sides of the lower sash.

The inside stop, *d*, is cut away for a short distance, as shown at *d'*, while the lower portion of the stop is made somewhat thicker or deeper, 55 as shown at *d''*, sufficiently to cover the joint between the sash and guide-section C'. The parting-stop *d'''* is continuous from the top to the bottom of the window-frame, and is constructed of such a width that the cut-away portion of the lower sash will swing past it when the said sash is tilted forwardly. 60

The blind or back stop, E, is cut away, as shown at *e*, while the upper portion of the stop is widened, as shown at *e'*, to cover the joint 65 between the sash and guide-section C. The upper sash may thus be tilted forward by lowering it to the cut-away portion *e*, its upper part swinging past the parting-stop *d'''*. The covering of the weather-joints between the guide-sections and the cut-away portions of the sashes by the widened stops is an important feature, and is accomplished, as will be seen, without any material additional expense in construction. The sections C, which serve 75 as guide-sections, may be constructed of metal, wood, or other material, and may be either pivoted directly to the sash, or bearing-plates might be inserted in the edges of either the guide-sections or sashes, or of both. 80

The construction shown in Fig. 3 consists in a sash the upper outer portions of the edges of which are cut away throughout half their length, (more or less,) and guide-sections located in the recesses are pivotally secured to the 85 side rails. The inside stop is here constructed continuous throughout its entire length, as in ordinary windows. The parting-stop is continuous as far as it is in sight from the inside, but is cut away, forming an upper and lower 90 section, *m m'*, where it is in sight from the outside, and the back or blind stop is cut away throughout a portion of its length, as shown at *n*.

The upper portions of both the upper and 95 lower sashes may be tilted inwardly toward the room because of their cut-away portions, the full portions of the sashes swinging outwardly through the recesses in the parting and blind stops. 100

A cross-bar of wood or other suitable material might also be employed, as shown in Fig. 4, extending from one of the guide-sections across to its opposite guide-section, either interlocking with the cross-bars of the ordinary sash or passing flush with them above or below their cross-bars. The cross-bar *m'* may be made adjustable in length, either by having the ends screw into a central sleeve or one or both telescope into a sleeve, or by any other approved construction, and thereby be adapted to fit windows of different widths. To strengthen the outer one-half sash-frame when made of wood, corner brackets of metal may be employed.

Other changes might also be made in the form and arrangement of the several parts described without departing from the spirit and scope of my invention; hence I do not wish to limit myself strictly to the construction herein set forth; but,

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

1. In a window, the combination, with a sash having its side rails cut away about the thickness of a stop, the said cut-away portions starting from one end of the sash and extending for a suitable distance toward the other end of the sash, of a guide-section pivoted to the sash in the cut away portion, full-length stops on one side of the sash, and cut-away stops on the opposite side, substantially as set forth.

2. In a window, the combination, with a tilting sash a side rail of which is cut away at one end, as described, and a guide-section pivotally secured to the sash in said cut-away portion, of a thickened stop adapted to cover the weather-joint between the sash and guide section, substantially as set forth.

3. In a window, the combination, with a window-frame, full-length parting-stops, and broken inside and blind stops, of a pair of sashes having the upper portions of the side rails of the upper sash and lower portions of the side rails of the lower sash recessed and supplied with guide sections, substantially as set forth.

4. In a window, the combination, with a frame having a continuous stop, of a sliding sash a side rail of which is cut away at one end, the said cut-away portion extending a suitable distance toward the opposite end by the sash to permit the sash to be tilted past the continuous stop, and a guide-section pivoted to the sash in said cut-away portion, substantially as set forth.

5. In a window, the combination, with a frame and sashes the side rails of which are recessed or cut away at one end, of a parting-strip extending from the top of the window-frame to a point below the upper end of the lower sash, a sash the side rails of which are recessed at one end, guide-sections secured within the recessed portions of said guide-rails, and sash-cords secured to said guide-sections.

6. In a window, the combination, with a frame, full-length parting-stop, and a pair of guide-sections supported by cords and weights, of a sash pivotally secured to the guide-sections and adapted to tilt past the parting-stop, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE HENRY KING.

Witnesses:

C. S. FERGUESON,
JAMES H. LEE.