

(No Model.)

3 Sheets—Sheet 1.

E. B. BRUNDAGE.
WINDOW.

No. 469,463.

Patented Feb. 23, 1892.

Fig. 1.

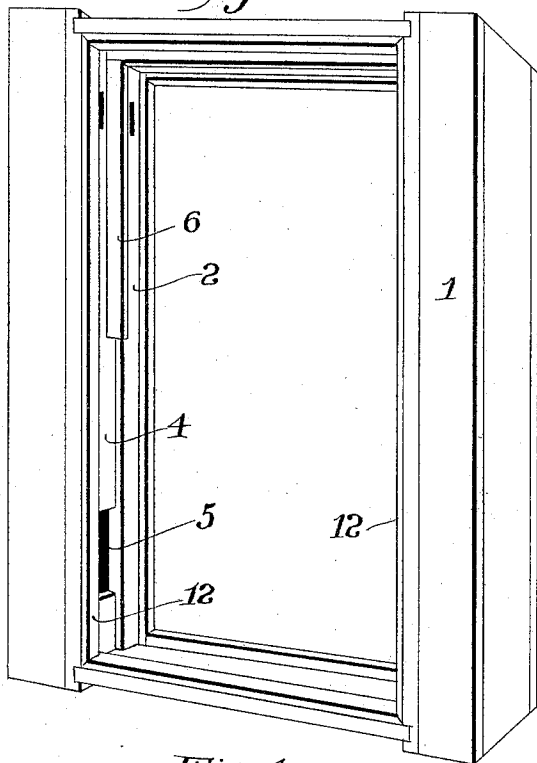


Fig. 2.

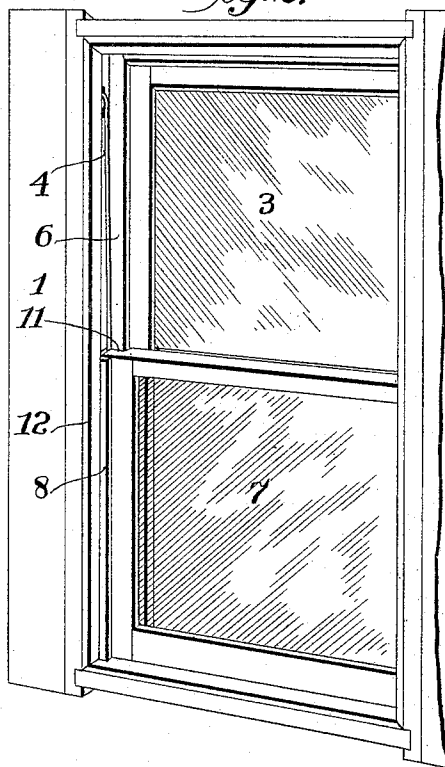


Fig. 4.

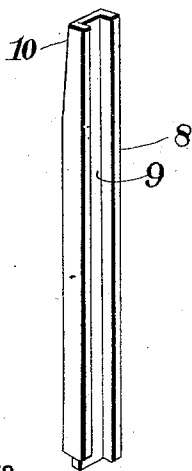
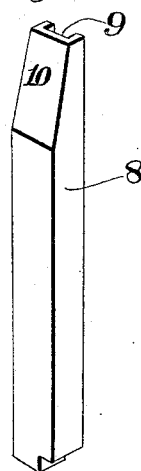


Fig. 5.



WITNESSES:

J. H. Hinch.
S. Williamson.

INVENTOR

E. B. Brundage

BY

J. W. Smith Jr.

ATTORNEY

(No Model.)

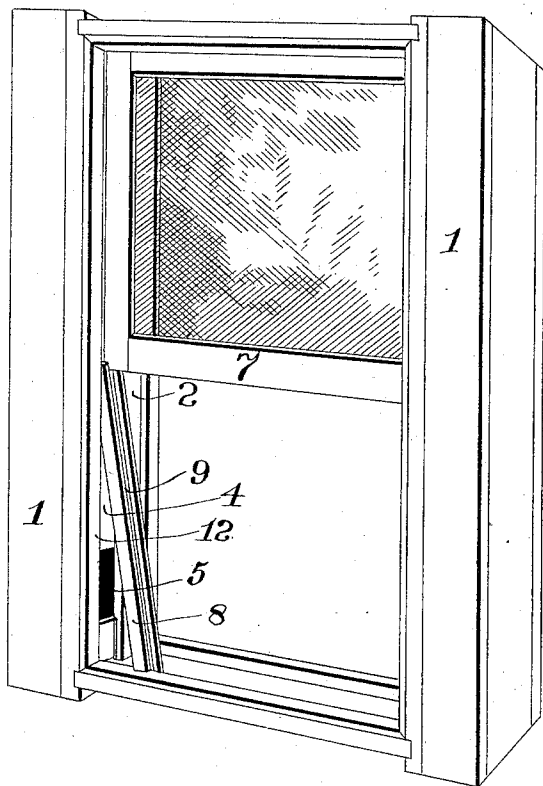
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Fig. 3.



WITNESSES:

J. Finch.
S. Williamson.

INVENTOR

E. B. Brundage

BY

T. W. Smith Jr.

ATTORNEY

(No Model.)

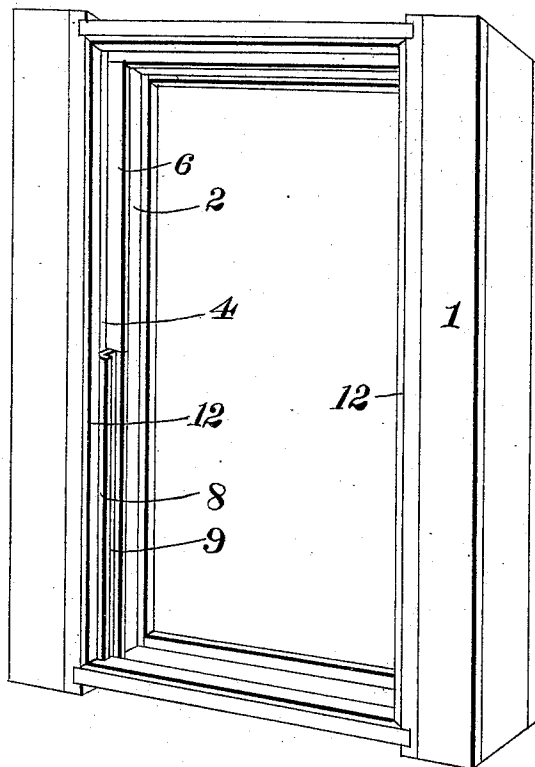
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Fig. 6.



WITNESSES:

H. Kitch.
S. Williamson

INVENTOR

E. B. Brundage
BY *F. W. Smith*
ATTORNEY

UNITED STATES PATENT OFFICE.

ELIAS B. BRUNDAGE, OF BREWSTER, NEW YORK.

WINDOW.

SPECIFICATION forming part of Letters Patent No. 469,463, dated February 23, 1892.

Application filed July 8, 1891. Serial No. 398,778. (No model.)

To all whom it may concern:

Be it known that I, ELIAS B. BRUNDAGE, a citizen of the United States, residing at Brewster, in the county of Putnam and State of New York, have invented certain new and 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.

My invention relates to certain new and useful improvements in window-frames, but more especially refers to the manner of assembling the sashes, whereby they may be readily removed and replaced without the removal of any screws or permanent fastening devices.

In the accompanying drawings, Figure 1 is a perspective view showing the sash-frame constructed in accordance with my improvement; Fig. 2, a similar view, but with the sashes in proper position; Fig. 3, a similar view showing the position of the sashes when the lower sash-run is on the point of being removed; and Figs. 4 and 5 are front and rear perspectives, respectively, of the removable lower sash-run. Fig. 6 is a perspective view of the frame, showing the removable run in position.

Similar numbers of reference denote like parts in the several figures of the drawings.

1 is an ordinary window-sash having the two runs 2 and two channels 4 (one of each only being shown) for the upper and lower sash, respectively, the distance between the two runs 2 for the upper sash 3 being less than the distance between the two runs 4 for the lower sash, this being caused by the runs 2 being set nearer the middle of the frame than the channels 4. A parting-strip 6 separates the upper portion of each run 2 from the upper portion of the corresponding channels 4, the shoulder formed by the face of the projecting run 2 forming an outer bearing for the removable run of the lower sash, the parting-strips being contained in the upper end of the channels 4, thus narrowing the latter, while the usual weight-pockets 5 are formed in the bottom of the channels.

Removable runs 8 for the lower sash are contained within the lower half of the channels 4, and have grooves 9, within which the said sash may slide freely when the runs are

in the position shown at Fig. 2. The noses of these runs are beveled, as shown at 10, in order that they may be readily inserted within the channels 4 and behind the sides of the lower sash. The runs are retained in position in the channels 4 against pressure tending to force them inwardly by the inner molding or side stops 12, the distance between the inner opposite faces of the said molding being greater than the width of the lower sash.

The meeting-rail of the lower sash is notched, as seen at 11, and bears at said notched portion against the strip 6, so as to afford a continuous stop to prevent side play of the sash when the latter has been raised nearly free from the runs 8.

When the removable runs are in proper position, as shown at Fig. 2, the vertical planes of the grooves 9 are within the vertical planes of the inner molding or side strip 12; or, in other words, the width of the lower sash is less than the distance between the side strips 12, so that, it will be readily understood, when the runs 8 have been removed the lower and upper sashes may be taken out. The provision of removable runs not only permits the withdrawal of the sashes, but the window-weights may be gotten at for obvious purposes without removing any screws or permanent strips; also, my improvement is readily applied to ordinary sashes and frames, and, moreover, the sashes work more freely in the removable runs than in the usual permanent runs.

The outside edges of the runs 8, when the latter are in position, are a continuation of the parting-strips 6, so that a complete parting-strip always separates the two sashes when they are assembled for use.

I claim—

1. A window-sash frame having channels for the lower sash, in combination with removable runs contained in the said channels, the upper ends of the said runs being beveled, whereby the runs may be tilted, inner molding retaining the said runs in the said channels, and a sash contained in the said runs, the width of the said sash being less than the distance between the inner opposite faces of the said molding, substantially as described.

2. A window-sash frame having fixed runs

for the upper sash and channels for the lower
sash, the distance between the said runs be-
ing less than the distance between the chan-
nels, a parting-strip separating the top of
5 each of the said runs from the top of the ad-
joining channel and contained in the tops of
each of the said channels, a removable run
contained in the bottom of each of the said
channels, the upper end of the said removable
10 runs being beveled, whereby they may be
tilted, inner molding retaining the said re-
movable runs within the said channels, and

upper and lower sashes contained in the fixed
or removable runs, respectively, the said
sashes being of less width than the distance 15
between the opposite faces of the inner mold-
ing, substantially as described.

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

ELIAS B. BRUNDAGE.

Witnesses:

E. BAILEY,
W. S. PRICE.