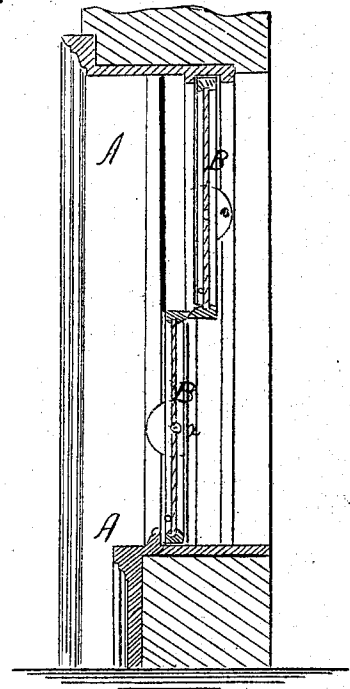
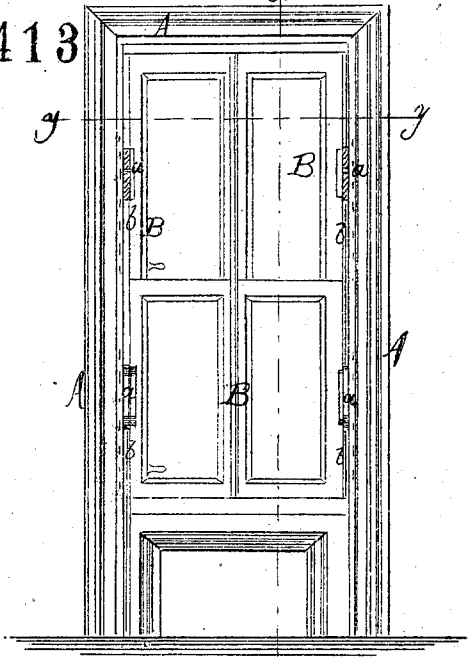


Chas. H. Palmer's Hanging Window Sashes

Fig: 1.

Fig: 2.

74413



PATENTED
FEB 11 1868

Fig: 4.

Fig: 3.

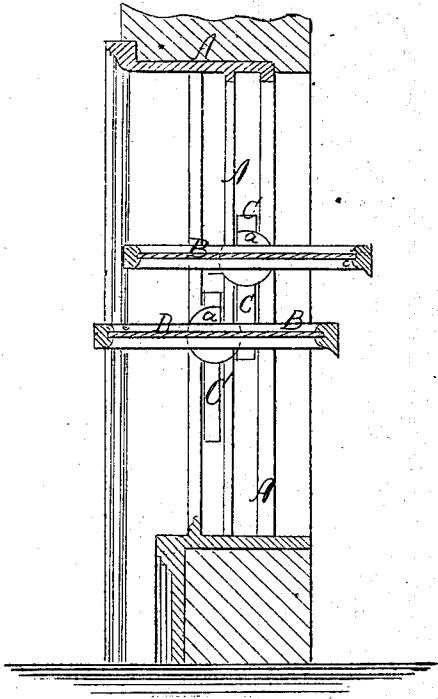
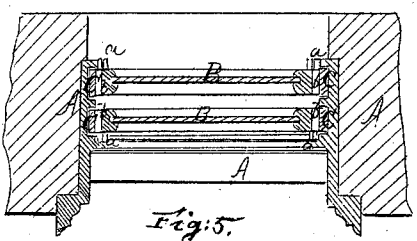
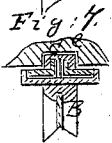
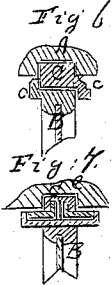
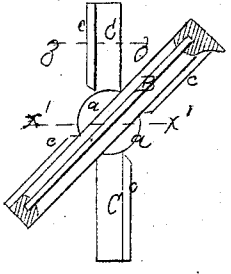


Fig: 5.

Fig: 6.

Fig: 7.



Witnesses:
Thos. Ensch
Wm. Spurr

Inventor:
Chas. H. Palmer
Per
Attorneys

United States Patent Office.

CHARLES H. PALMER, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF,
NEWTON PALMER, AND JOSEPH HEINRICH, OF THE SAME PLACE.

Letters Patent No. 74,413, dated February 11, 1868.

IMPROVEMENT IN HANGING WINDOW-SASH.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, CHARLES H. PALMER, of the city, county, and State of New York, have invented a new and useful Improvement in Hanging Window-Sashes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a front elevation, partly in section, of my invention.

Figure 2 is a vertical sectional view of the same, the plane of section being indicated by the line $x x$, fig. 1, the sashes being shown closed.

Figure 3 is a similar view, the sashes being swung open.

Figure 4 is a horizontal sectional view of the same, the plane of section being indicated by the line $y y$, fig. 1.

Figure 5 is a detail vertical section of a sash provided with a modification of my improvement.

Figures 6 and 7, horizontal sectional views of the latter, the planes of section being respectively indicated by the lines $z z$ and $x' x'$, fig. 5.

Similar letters of reference indicate corresponding parts.

This invention relates to a new manner of hanging window-sashes, and its object is to so arrange the hanging that the sashes can be moved up and down, as usual, and that they can be turned into a horizontal position, so as to open the whole window, whenever desired. The ordinary sliding sashes are very inconvenient, because by their use only half the window can be opened, so that the full amount of fresh air cannot be let in, as can be done in the folding windows.

My invention is intended to combine the advantages of the sliding with those of the folding windows, and consists in pivoting the sashes to bars that slide up and down in the casing, so that the sashes can be turned into horizontal or vertical positions, and can be moved up and down, as may be desired. Suitable packing is arranged between the sashes and sliding bars to keep the joint air and water-tight, when the window is closed, or flanges are arranged on the sashes and sliding bars for the same purpose.

A represents the casing of a window provided with grooves on the sides, as in ordinary sliding windows. B B are the sashes, which are as usual, but only as wide as the distance between the projecting lips of the casing, so that they can turn in the latter. C C are bars of about the same length as the sashes, or shorter, if desired. They are fitted into the grooves in the casing, (see fig. 3,) and are pivoted to the edges of the sashes by suitable pivots $a a$. Stops of suitable kind may be arranged on the bars C and sashes B, to retain the latter in the vertical or any other position. The bars C C can be provided with ropes and weights, or other suitable devices to retain them and the sashes at any desired height. On the edges of the sashes, or on the inner sides of the bars C, or both, may be arranged leather or rubber packings $b b$, fig. 4, to keep the joints water-tight when the window is closed, as in fig. 4, or flanges $c c$ can be arranged on the bars C and sashes B, as shown in figs. 5 and 6. By their use the joints will be made water-tight, and the packing can be dispensed with. When the sashes are turned into a horizontal position, as in fig. 3, the whole window is opened for the admittance and discharge of air. The pivot a may also have a flange on one of its parts, so as to prevent air and water from passing through, as shown in fig. 7. By the use of the flanges c and the flanged or cup-shaped pivot, the sash may shrink and the joints will still be tight.

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

The combination and arrangement of the flanged sashes B, the disks, packings $b b$, flanged sliding bars C, weather-strips and pivots a , all constructed and operating as described for the purpose specified.

CHARLES H. PALMER.

Witnesses:

WM. F. McNAMARA,

ALEX. F. ROBERTS.