

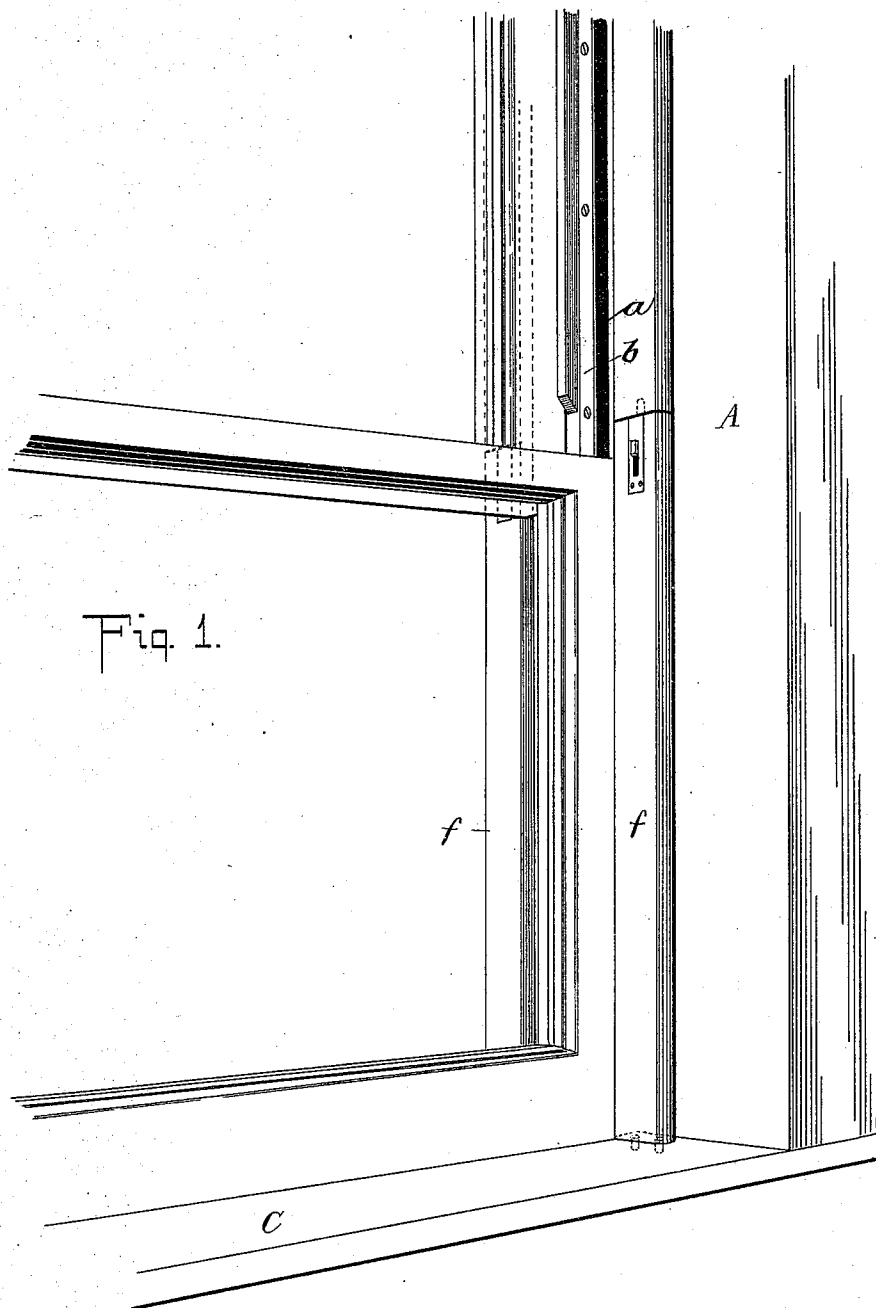
(No Model.)

3 Sheets—Sheet 1.

F. C. von HEYDEBRAND u. d. LASA.
WINDOW.

No. 528,637.

Patented Nov. 6, 1894.



WITNESSES:

Wm. B. Shepherd,
Geo. E. Moore.

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BY

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ATTORNEYS

(No Model.)

3 Sheets—Sheet 2.

F. C. von HEYDEBRAND u. d. LASA.
WINDOW.

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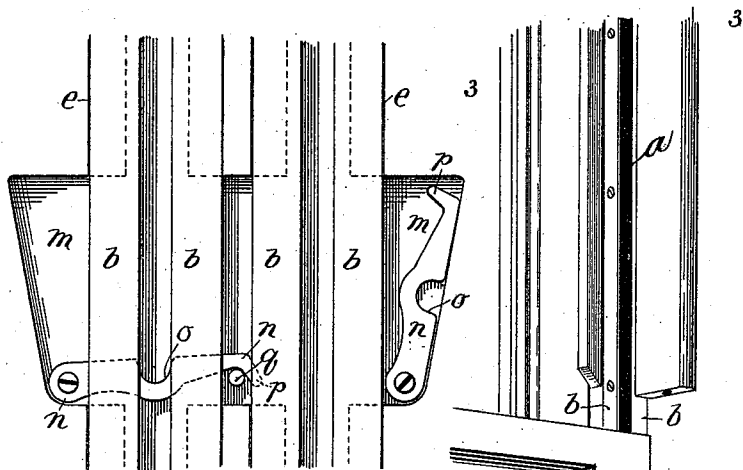


Fig. 4.

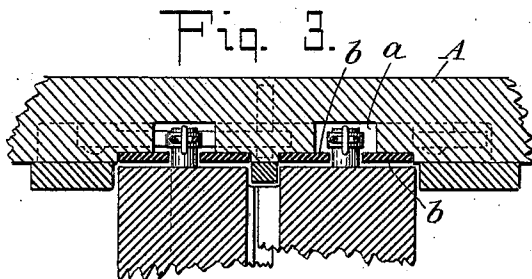


Fig. 3.

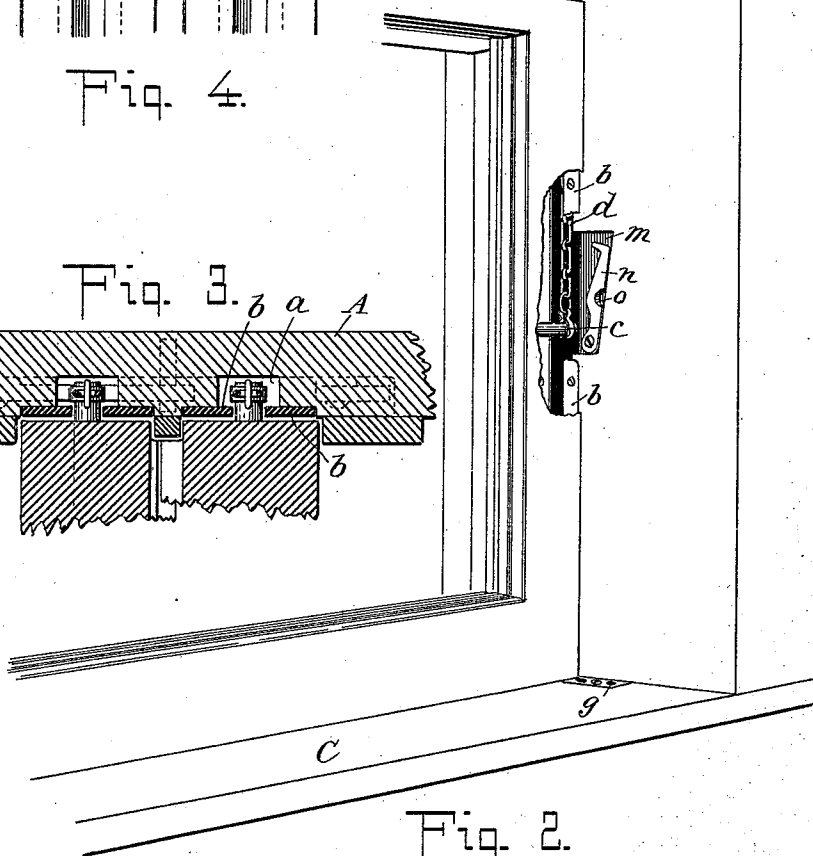


Fig. 2.

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(No Model.)

3 Sheets—Sheet 3.

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Fig. 6.

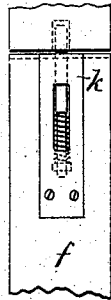
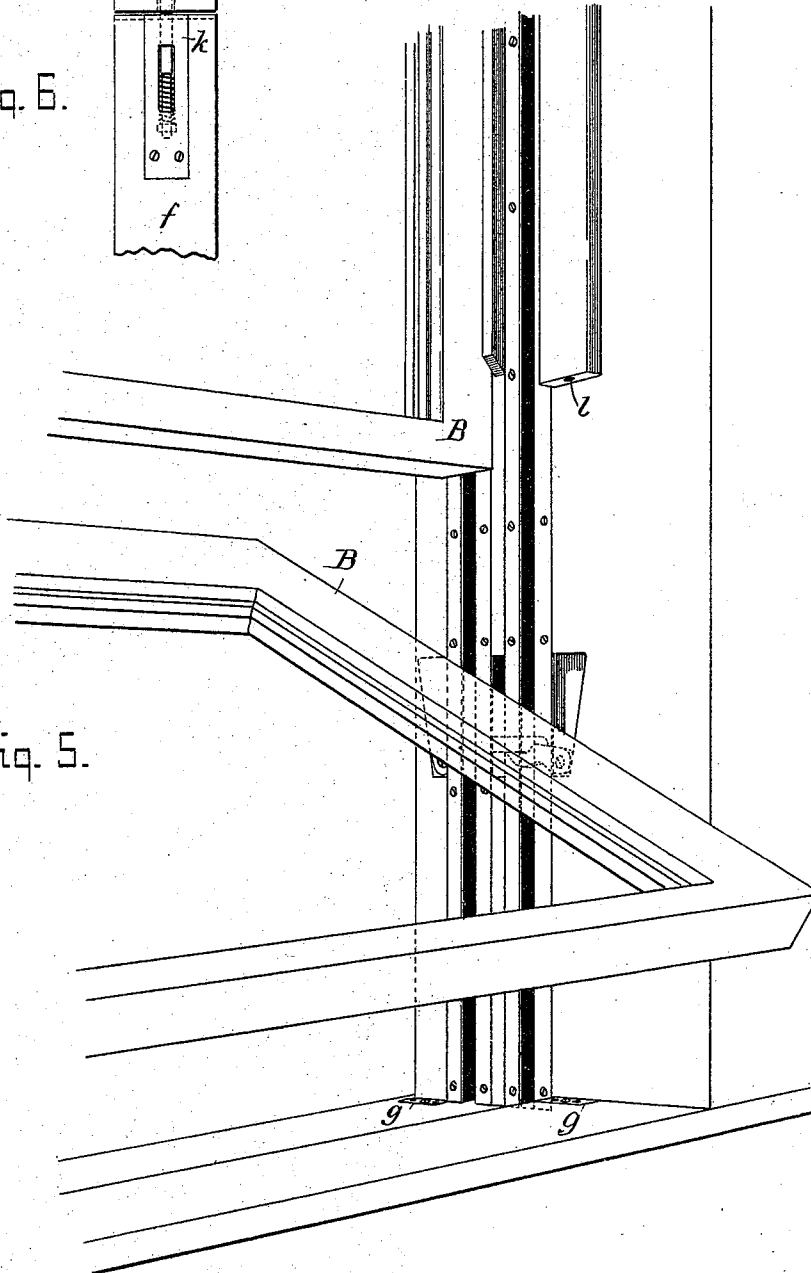


Fig. 5.



WITNESSES:

Wm. B. Shepherd.

Geo. C. Mosey



Fig. 7.

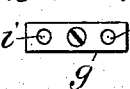


Fig. 8.

INVENTOR

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Brissau & Mauch

ATTORNEYS

UNITED STATES PATENT OFFICE.

FERDINAND-CHRISTOPH VON HEYDEBRAND. UND DER LÄSA, OF NEW YORK,
N. Y., ASSIGNOR OF ONE-HALF TO GEORGE SEMLER, OF SAME PLACE.

WINDOW.

SPECIFICATION forming part of Letters Patent No. 528,637, dated November 6, 1894.

Application filed May 7, 1894. Serial No. 610,313. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND-CHRISTOPH VON HEYDEBRAND. UND DER LÄSA, a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Windows, of which the following is a specification.

My invention relates to windows, and has for its object to provide a construction wherein the sashes both slide and swing, which action greatly facilitates the cleaning of the window.

To this end my invention consists in the construction which enables me to reverse the sash in the casing to bring the outside face of the window inside of the room or building so that the outside of the sash and window may be cleaned without rendering it necessary for the cleaner to go outside of the building.

My invention further consists in details of construction hereinafter set forth, illustrated in the accompanying drawings and more particularly pointed out in the claims.

I am aware that it has been hitherto proposed to provide windows with sliding and swinging sashes, but by my improvement I am enabled to make a practical structure of the more or less imperfect and impractical structures hitherto proposed.

I attain the objects of my said invention by the construction shown in the accompanying drawings, wherein—

Figure 1 is a perspective view of one side of my improved window showing the sash in its normal position. Fig. 2 is a similar view, parts being broken away and removed in order to clearly show the method of pivoting the sliding sash. Fig. 3 is a horizontal section of Fig. 4. Fig. 4 is a detail view of the movable bearings or pivot hooks upon which the sash pivots rest, as will be more fully hereinafter set forth. Fig. 5 is an isometric view similar to Fig. 1 showing the window sash in a tilted position. Fig. 6 is a detail view of an end of one of the removable sections of the beads showing a method of fastening the same in place. Fig. 7 is a detail view of the other end of a bead, as shown in Fig. 6; and Fig. 8 is a socket-plate for the recep-

tion of the dowels of the removable bead, all of which will more fully hereinafter appear.

In the drawings, A represents a portion of the window casing having therein vertical grooves *a* for the reception of the sash pivots. These grooves I preferably provide with edge-plates *b*.

B B are sliding window sashes provided with pivots *c* which enter the grooves in the window casing. These sashes are suspended by any suitable form of sash-cord, in the present case shown as a chain *d*, which sash-cord is secured to or otherwise engages the sash pivots *c*, thus holding the window sash suspended.

The window casing is provided with the usual inside and outside beads, of which the section *f* is made removable, although the entire bead may be removed, if desired. I may secure this removable section *f* in place in any suitable manner, as by means of a socket-plate *g* in the sill C, the removable section being provided with dowel pins *h h* for entering the apertures *i* in the socket-plate and at its other end with a spring-catch *k* whose bolt enters an aperture *l* in the fixed or stationary section of the bead.

Within suitable recesses *m* in the window casing I provide movable bearings or hooks *n* which are shown in this case as pivoted to the casing, but it will be obvious that the bearings may take other forms and may be otherwise mounted without departing from the spirit of my invention, nor is it necessary that these bearings should be sunk in the casing as they may be otherwise disposed. I have shown these hooks as provided each with a notch *o* for the reception of a sash pivot when the hook is in position for use and with a barb *p* to engage over the pin *q* in the casing. In the normal operation of the window the hooks are swung back in their recesses and the vertical slots offer a free and unobstructed way for the passage of the sash pivots when the sash is raised or lowered. In this normal operation, which is in all respects similar to the operation of the ordinary window, the removable beads are in place, as shown in Fig. 1, the sashes being counterbalanced in the

usual manner to admit of readily sliding them up and down. Now, when it is desired to reverse either sash for cleaning, the lower sash is raised, the removable sections of the beads removed, the movable bearings brought into position in the slot *a*. The sashes can then be slid down one at a time, and the sash pivot will rest upon the bearing which forms a rigid support therefor, and the sash can thereupon be rotated upon its pivots, as shown in Fig. 5, and the sash reversed on its pivots when the outside of the sash can readily be cleaned from within the building.

While I have shown a specific structure and have described the same in positive terms, I would have it understood that I do not thereby expressly limit myself to this structure, as the detail may be varied without departing from the spirit of my invention which is essentially to provide some means for rigidly supporting the sash upon trunnions in order to revolve the same and as a corollary thereto to provide some means for moving the beads which guide the sash, which may be done either by removing the entire bead or a section of the bead, or by hinging the bead or a section thereof, if desired. The other details are likewise capable of many variations.

I do not claim broadly a sliding and swinging window suspended upon sash-cords by sash pivots and adapted to be reversed to be cleaned, as I am aware that such a construction is shown in patent to Francis Greene and Mary A. Greene for window, No. 458,392, dated August 25, 1891, but

What I claim, and desire to secure by Letters Patent, is—

1. In a window, the combination of a casing provided with vertical grooves, a window sash provided with pivots entering the said grooves in the casing, and bearings in the grooves normally out of engagement with the sash pivots but with which they are engaged to temporarily suspend the sash so that the same may be swung upon its pivots, substantially as described.

2. In a window, the combination of a casing, vertical grooves therein, a vertically moving sash provided with pivots entering the said grooves in the casing, and movable bearings

normally disconnected from the sash pivots but adapted to be moved into the path of the sash pivots to co-operate therewith, to temporarily suspend the sash so that the same may swing on its pivots, substantially as described.

3. In a window, the combination of a casing having grooves therein, a sash provided with pivots entering and traversing the grooves in the casing and pivoted hooks adapted to be swung into the path of the sash pivots to co-operate therewith to suspend the sash to swing upon its pivots, substantially as described.

4. In a window, the combination of a casing provided with vertical grooves, a sash provided with pivots entering and traversing the grooves, bearings within the grooves, normally out of engagement with the sash pivots but adapted to be engaged therewith to temporarily hold the window suspended, in order that the same may be turned on its pivots, and movable inside and outside beads, substantially as described.

5. In a window, the combination of a casing provided with vertical grooves, a sash provided with pivots entering the grooves, pivoted hooks adapted to be swung across the grooves to co-operate with the sash pivots to hold the sash suspended, and movable inside and outside beads, substantially as described.

6. In a window the combination of a sash provided with pivots, a casing provided with vertical grooves and with recesses in proximity to said grooves, together with pivoted hooks located in the recesses and adapted to be swung across the grooves to co-operate with the sash pivots, substantially as described.

7. The combination in a window of a sash provided with pivots a casing provided with vertical grooves and recesses in proximity to said grooves pivoted hooks located within the recesses and adapted to be swung across the grooves, to co-operate with the sash pivots, and stop-pins for limiting the movement of the hooks, substantially as described.

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Witnesses:

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ISAAC A. LEVY.