

N. PLOUFF.

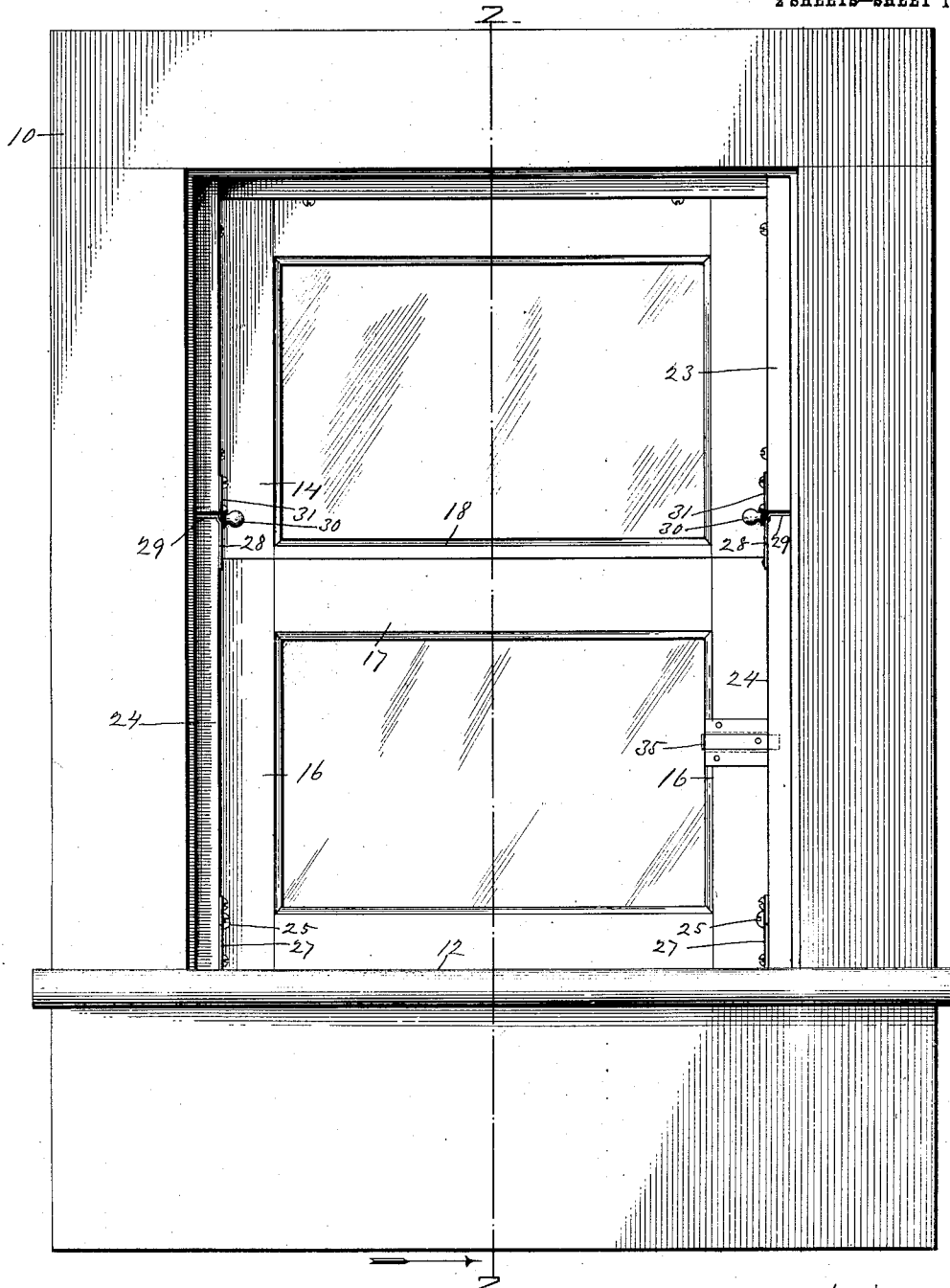
WINDOW.

APPLICATION FILED APR. 15, 1908.

929,108.

Patented July 27, 1909.

2 SHEETS—SHEET 1.



WITNESSES
M. A. Atwood
Frank G. Parker

FIG. 1.

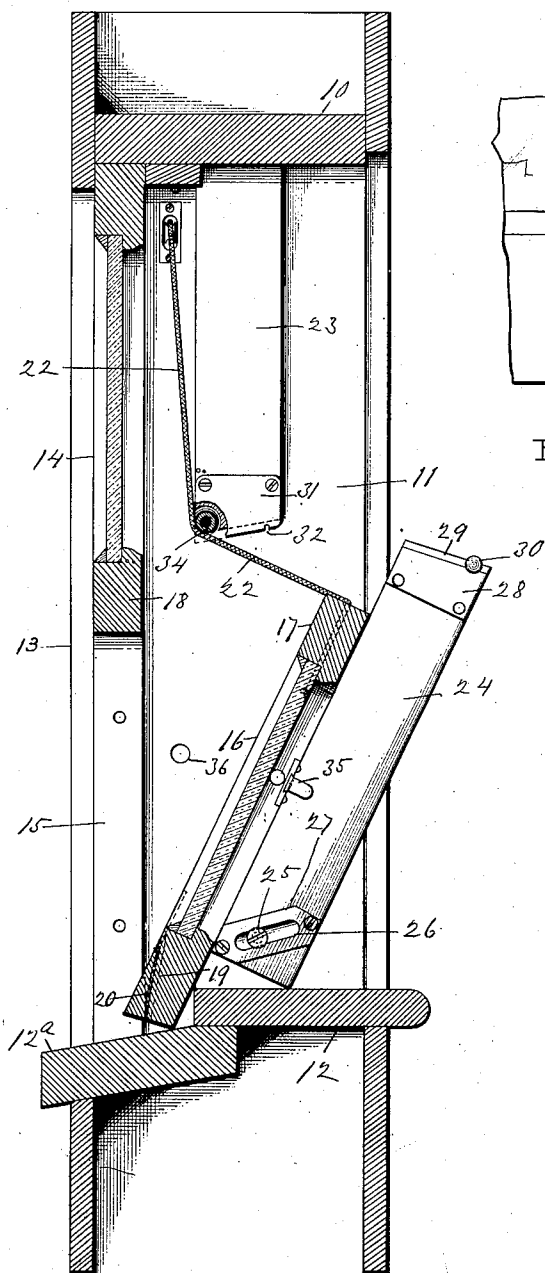
INVENTOR

Napoleon Plouff
By his Atty.
Sherry Williams

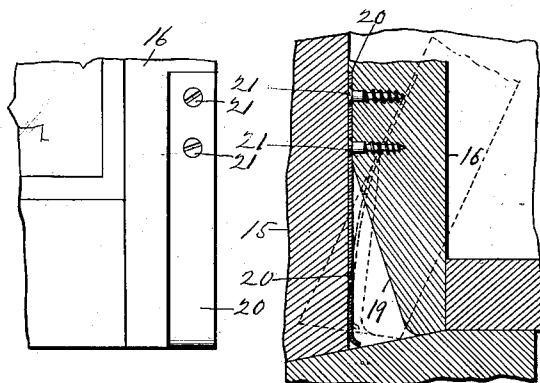
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Fi 4.

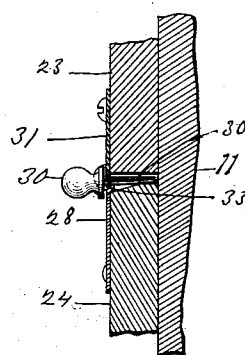


Fig. 5.

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UNITED STATES PATENT OFFICE.

NAPOLEON PLOUFF, OF WEST BROOKFIELD, MASSACHUSETTS.

WINDOW.

No. 929,108.

Specification of Letters Patent.

Patented July 27, 1909.

Application filed April 15, 1908: Serial No. 427,123.

To all whom it may concern:

Be it known that I, NAPOLEON PLOUFF, a subject of the King of Great Britain, residing in West Brookfield, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Windows, of which the following is a specification.

This invention relates to that class of windows in which one or more of the sashes are removable and in which the lower sash is adapted to swing out of a vertical position and be sustained in an inclined or non-vertical position: and it consists in a certain novel construction and arrangement of parts whereby the sashes can be removed, as for cleaning purposes; whereby the lower sash can be swung inward, thus causing the air which impinges against it to be deflected upward into the room; and whereby it can be secured in both its normal and its inwardly inclined positions.

The nature of the invention is fully described below, and illustrated in the accompanying drawings, in which:—

Figure 1 is an elevation of a window and casing thereof looking from the inside, the parts being in their normal position. Fig. 2 is a section taken on line 2—2, Fig. 1 with the lower sash swung toward the room. Fig. 3 is a rear elevation in enlarged detail of one of the lower corners. Fig. 4 is an enlarged detail in vertical section taken at the same corner. Fig. 5 is an enlarged detail in vertical section taken at the point where the upper and lower beads on one of the jambs meet and are secured together.

Similar characters of reference indicate corresponding parts.

Reference character 10 represents the lintel, 11 the jambs, 12 the sill, and 13 the outside beads of a window-frame.

14 is the upper sash. This sash is not secured to the frame of the window, nor connected therewith by any cord and pulley, and rests upon two upright posts 15 which are secured to the jambs directly under said sash, said posts being next the rear surface of the stiles 16 of the lower sash. The upper rail 17 of the lower sash is constructed as usual, and is, when the upper sash is in normal position, in front of the lower rail 18. The lower corners of the rear side of the lower sash are beveled at 19, as illustrated in Fig. 4, and in dotted lines in Fig. 2, and vertically disposed springs 20 are set in the stiles 16

flush with the surface thereof and are secured thereto by suitable screws 21 above the beveled portions 19 and extend down opposite and behind said portions to the outer portion 12^a of the sill, being preferably curved or bent inward at their lower ends. These springs bear against the front edges of the posts 15, and their object is described below.

The lower sash is hung by means of suitable cords 22 and weights, and its movement or run is between the upper sash the stationary inside bead 23 and between the posts 15 and the swinging lower inside beads 24. It will be seen that instead of a single stationary front bead secured to each jamb, there are two beads, one directly above the other. The lower ends of the upper stationary beads 23 are beveled upward and inward, and the upper ends of the swinging lower beads 24 are correspondingly beveled. The lower ends of the swinging beads are pivotally connected with the two jambs by means of headed pins or screws 25 which extend from the jambs through diagonal slots 26 formed in said lower swinging beads near their lower ends, said slots extending upward toward the inside of the window. The sides of these slots are reinforced by suitable plates 27. The upper ends of the swinging beads 24 are reinforced by plates whose vertical portions 28 are secured to the inner surface of said beads, and whose horizontal portions 29 are secured to the upper beveled ends of the beads. Spring-pins 30 extend horizontally inward from the upper ends of the beads through the portion 28 of said plates 28, 29. The upper stationary beads 23 are provided on their inner faces at their lower ends with plates 31 secured to said faces and extending for a short distance below the same, their lower edges being parallel with the lower edges of the beads, and being provided with notches 32 in which said spring-pins 30 lie normally, thus locking the adjacent ends of the beads 23 and 24 together, the portion 28 of the plate on the bead 24 being provided with a suitable slot 33 (Fig. 5) into which the spring-pin may be pressed down in order to disengage it from the slot 32. Behind the plates 31 at the lower outer corners of the beads 23 are located suitable pulleys 34 for the accommodation of the cords 22. One of the stiles 16 of the lower sash is provided with a horizontal spring-bolt 35 which locks the said sash normally in a vertical position, by extending into a

hole 36 in one of the jambs 11, another hole being arranged to receive the bolt when the lower sash is swung outward in the position indicated in Fig. 2.

5 In practical operation, the parts being in the normal position illustrated in Figs. 1, 3, 4 and 5, if it is desired to ventilate the room, the bolt 35 is withdrawn from the hole 36 in the jamb, the two springs 30 are swung down from the notches 32 into the notches 33, and 10 the lower sash is swung inward into the position illustrated in Fig. 2, or into any desired angle, swinging before it the lower beads 24 which are allowed to swing by reason of the 15 pivots 25 and slots 27 near their lower ends and by the inclined adjacent edges of the upper and lower beads. When in this position, the sash rests on the beads 24, the ropes 22 being long enough to permit of an 20 adequate forward swing. In this position the lower sash deflects the entering air upward and prevents a direct draft on the occupants of the room, or the sash may be entirely lifted out by detaching the ropes 22, 25 for washing or other purposes. Moreover by arranging suitable holes in the jamb in the path of movement of the bolt 35, it may be locked at any desired angle. While the lower sash is in the position illustrated in 30 Fig. 2, or while it is entirely removed, the upper sash can be lifted off the posts 15 and be removed from the window, as it is not secured to the jambs in any manner. While the lower sash is being swung forward, the 35 springs 20 are forced by the posts 15 into the recesses 19, said recesses cutting off the corners of the sash at those points and thus allowing the sash to swing free of the posts 15. When the lower sash is in its normal position 40 the springs 20 press against the said posts and keep the window rain-tight at those points. When the sashes are in their normal position, the lower sash is locked and

prevented from either vertical or swinging movement, by the bolt 35 and the spring-catches 30; and the upper sash is prevented from vertical and inward movement by the posts 15 and the lower sash. 45

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is:— 50

In a window of the character described, a frame, an upper sash, stationary beads secured to the jambs in front of the upper sash, plates secured to the inner faces of the lower 55 portions of the stationary beads, the lower edges of said plates being beveled and extending down beyond the lower ends of the stationary beads and provided with notches in said edges, a lower sash, beads pivotally 60 secured near their lower ends to the jambs in front of the lower sash and provided at their upper ends with downwardly extending recesses registering with said notches when the upper and lower beads are in line, plates secured to the inner faces of the upper portions of the pivoted beads and beveled to correspond with the bevels on the plates of the stationary beads, and horizontal spring-bolts in said recesses sustained normally by 70 the springs in a horizontal position and extending while in said position into the notches in the upper plate thereby locking the upper and lower beads together, and adapted to be swung down out of engagement with the upper beads into the recesses in the lower beads whereby said lower beads may be swung inward toward the room, for the purpose set forth. 75

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 80

NAPOLEON PLOUFF.

Witnesses:

ARTHUR H. BATES,
ELBERT L. STEELE.