

No. 725,000.

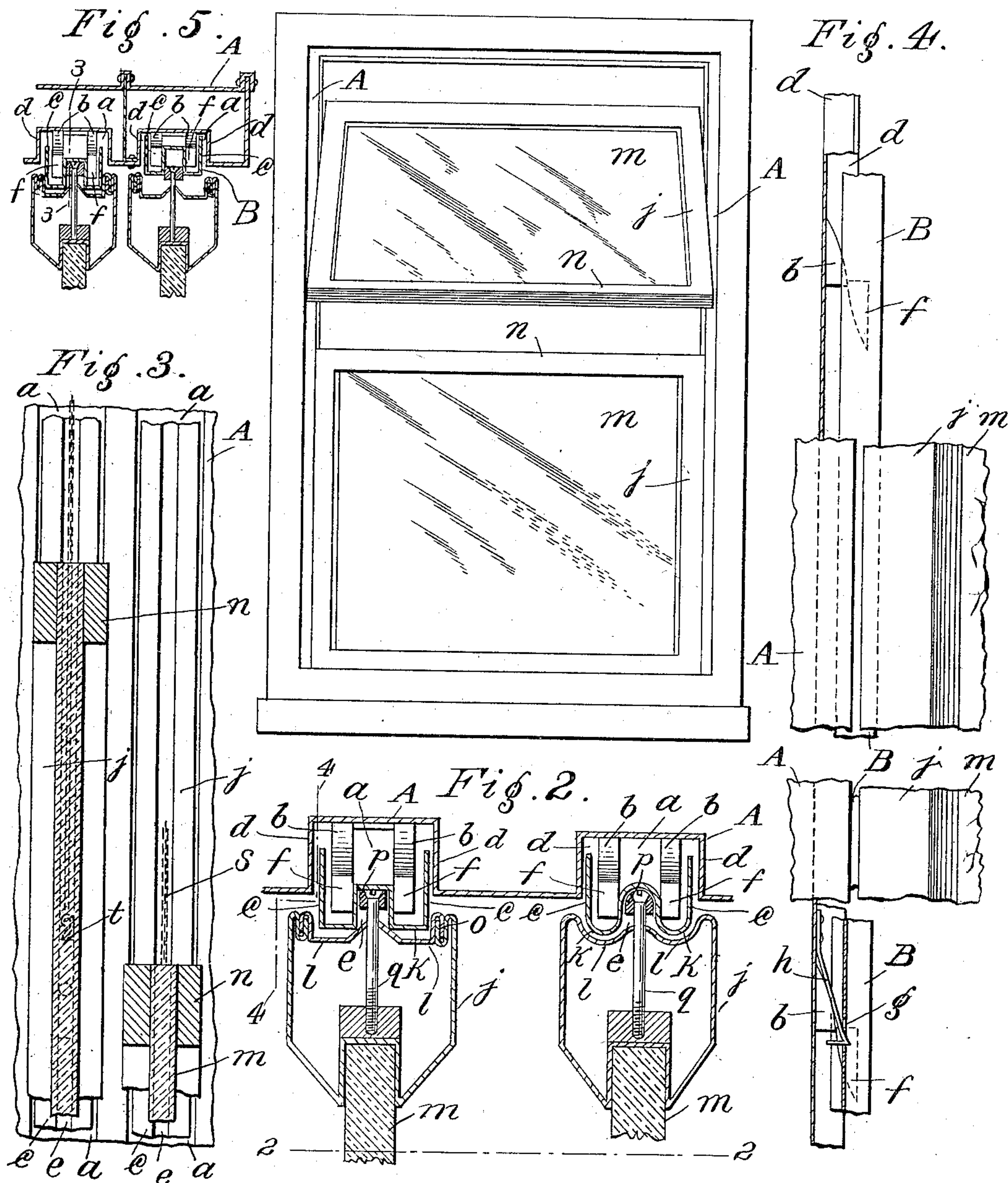
PATENTED APR. 7, 1903.

P. O. HULTMARK.
WINDOW.

APPLICATION FILED JUNE 14, 1902.

NO MODEL.

Fig. 1.



Witnesses
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UNITED STATES PATENT OFFICE.

PETER OLOF HULTMARK, OF NEW YORK, N. Y., ASSIGNOR TO JOHN T. LEONARD, OF NEW YORK, N. Y.

WINDOW.

SPECIFICATION forming part of Letters Patent No. 725,000, dated April 7, 1903.

Application filed June 14, 1902. Serial No. 111,718. (No model.)

To all whom it may concern:

Be it known that I, PETER OLOF HULTMARK, a subject of the King of Sweden and Norway, and a resident of borough of Bronx, New York city, and State of New York, have invented certain new and useful Improvements in Windows, of which the following is a specification.

My invention relates particularly to windows having the sashes pivoted, so as to be turned over for convenience in washing the outside, the said sashes and window-frame being of metallic construction, as hereinafter described, reference being made to the accompanying drawings, in which—

Figure 1 is a front elevation of a window constructed in accordance with my improvements, with the upper sash partly turned over on the pivots. Fig. 2 is horizontal section of one side of the frame and parts of the sashes, which are represented as overlapping each other, so that a horizontal line will intersect both, and showing a modification in the construction of the sash-stiles and guideways. Fig. 3 is a detail in vertical section on the line 2 2 of Fig. 2. Fig. 4 represents details, partly in elevation and partly in vertical section, as indicated by the dash-and-dot line 4 4 of Fig. 2.

A represents one of the vertical metallic side parts of the window-frame, in which two vertical channels *a* are provided side by side in the planes in which the respective sashes are to be mounted. Near each end of each channel two wedge-shaped pieces *b* are attached to the bottom of the channel, with the points upward at a certain distance apart and a little apart from the sides *d* of the channel, as clearly shown in Fig. 2.

To each channel *a* a duplex sheet-metal channeled stop and guideway strip is provided, which is indicated generally by reference character B, whereof the sides *c* are adapted to fit telescopically within the sides of channels *a*, and in the middle of the reverse side of the bottom part of this channel-strip B is a channel *e*. To the exterior sides of this reverse channel—that is, within the main channel of the said strip B near each end—two wedge-pieces *f* are attached point-

ing downward and being in the planes of the wedges *b*, respectively, so as to slide on them.

The strip B is a little shorter than the full height of the channel *a*, so as to slide up and down the length of the wedges *b*. A perforation *g* is provided at a suitable place along the strip B, and a spring-catch *h* is attached to the bottom of channel *a* in suitable relation to said perforation for catching thereon to hold the strip against being raised by the frictional contact of the sash when being raised. When it is desired to raise the said strip, a suitably-pointed instrument is to be inserted in the perforation against the catch to thrust it back for releasing the strip and then serve as a lifter to raise the same.

It will be seen that when lifted the strip B may be pressed backward against the bottom of the channel *a* to the minimum limit of its outward projection and when shifted down the wedges thrust it outward in greater projection. The stop-strips are also the guideways for the sash-stiles *j*, the two protruding ribs *k* of said strips produced by the reverse grooves *e* of the strips formed between them being utilized for such guideways by providing parallel grooves *l* in the edge members of the stiles, which consist of hollow sheet-metal plates suitably bent and formed in cross-section therefor and being shaped with such parallel grooves, and they are grooved on the inner edges for reception of the glass pane *m*, which may be inserted through slotted meeting-rails, as in Fig 3.

The grooves *l* of the stiles and the corresponding ribs of the stop and the guideway strips B may be of rounded cross-section, as at the right hand of Fig. 2, or of angular cross-section, as at the left hand of said figure, and the stiles may be constructed with detachable edge members for ready renewal, as represented at *o*, or not, as desired, but this latter construction is not claimed herein.

In the reverse channels *e* of the stop and guideway strips B pivot-blocks *p* are fitted one to each side of each sash, carrying the pivot-studs *q* of the sash and being suspended from the chains *s*, running on the usual sash-cord pulleys (not shown) and carrying the counterbalance-weights *t*. It will be seen

that with these adjustable stop and guideway strips neither the intermediate nor outside stops of ordinary construction are needed, and it is only necessary to shift the stop
5 and guideway strips backward for putting in or removing the sash or for releasing them from the guideways for turning on the pivots.

It is to be understood that my improved stop and guideway strip device is alike useful for the ready application and removal of
10 sash not pivoted for turning over, and I include such use of it.

What I claim as my invention is—

1. The combination with the vertically-
15 grooved window-frame and with the sash and the sash pivot-blocks, of the non-sliding intermediate duplex sheet-metal stop and guideway strips whereon the sash and said pivot-blocks slide up and down, said strips being
20 telescopically adjustable in the grooves of the frame, and said strips and the sash-stiles provided with coacting guideway ribs and grooves.

2. The combination with the vertically-
25 grooved window-frame and with the sash and the sash pivot-blocks, of the non-sliding intermediate duplex sheet-metal stop and guideway strips whereon the sash and said sash pivot-blocks slide up and down, said strips

being telescopically adjustable in the grooves 30 of the frame and means for so adjusting said strips, said strips and the sash-stiles provided with coacting guideway-ribs and grooves.

3. The combination with the vertically-grooved window-frame and with the sash, of 35 the intermediate stop and guideway strips telescopically adjustable in the grooves of the frame, and also vertically adjustable thereon, and the wedges controlling the telescopic adjustment, said strips and the sash-
40 stiles provided with coacting guideway-ribs and grooves.

4. The combination with the vertically-grooved window-frame and with the sash, of 45 the intermediate stop and guideway strips telescopically adjustable in the grooves of the said frame and having grooves for the sash-pivot carrying and suspending blocks, said blocks, and their suspending cords and weights, the said strips and sash having co-
50 acting ribs and grooves.

Signed at New York city this 24th day of May, 1902.

PETER OLOF HULTMARK.

Witnesses:

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J. M. HOWARD.