

O. BAIGNÉ.

WINDOW.

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946,491.

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Fig. 1.

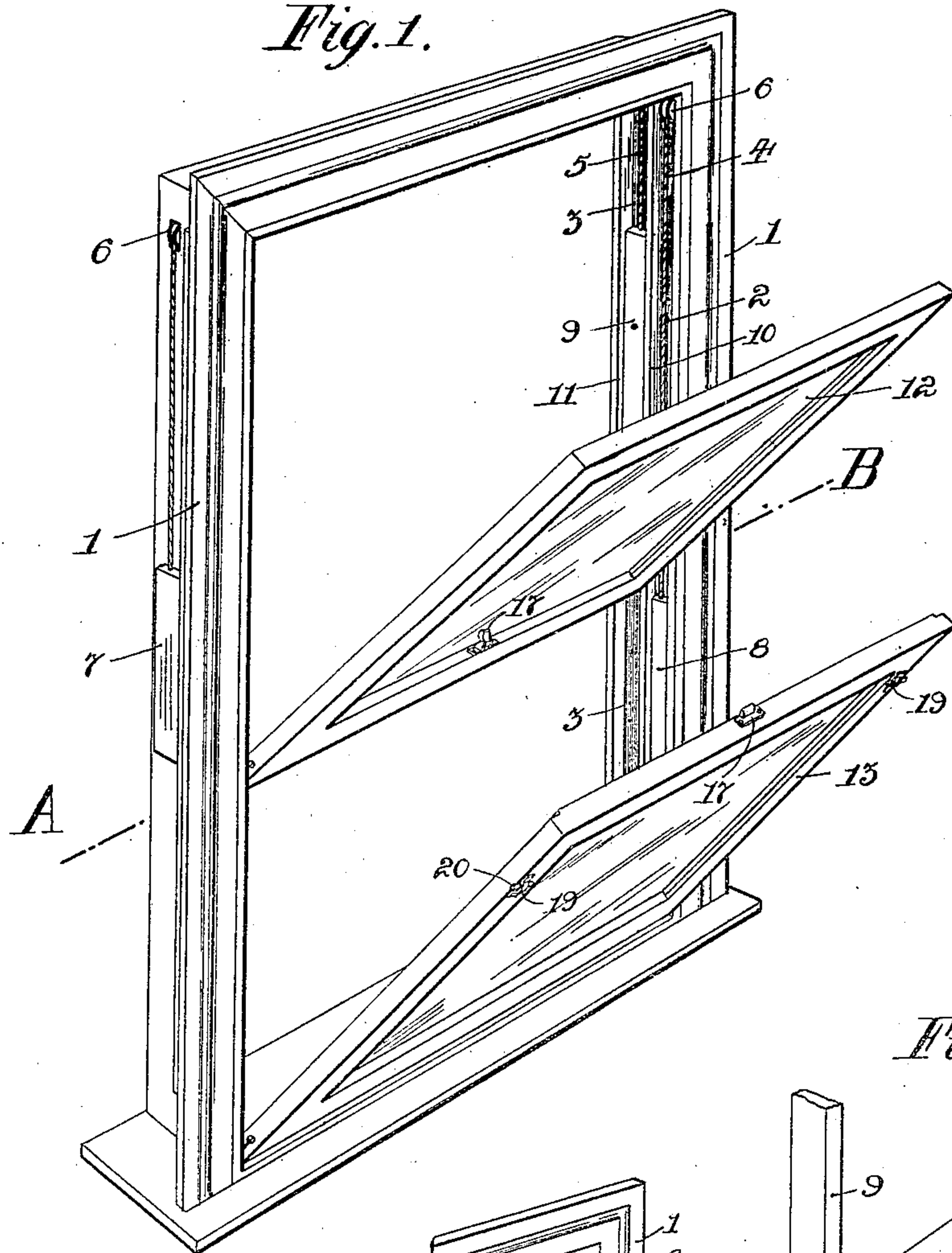


Fig. 3.

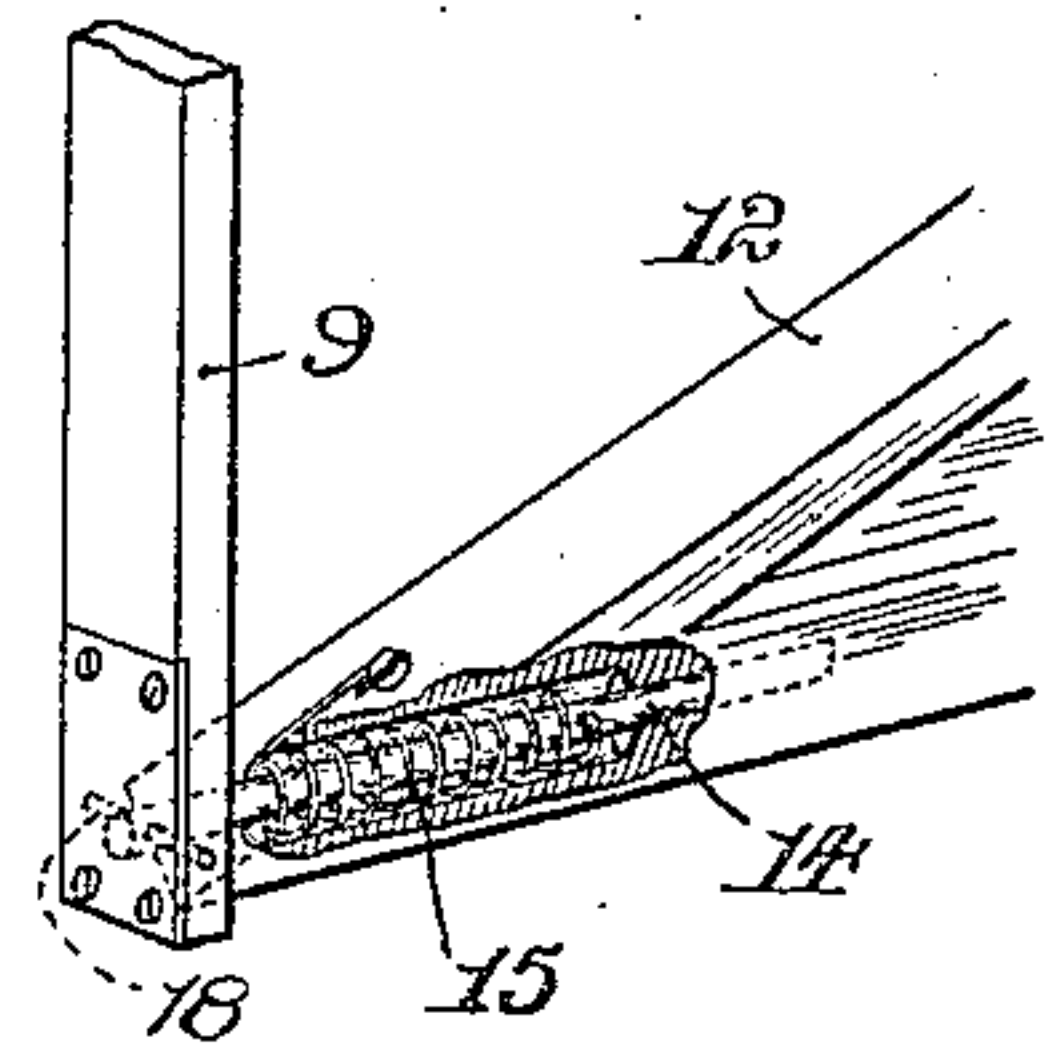


Fig. 4.

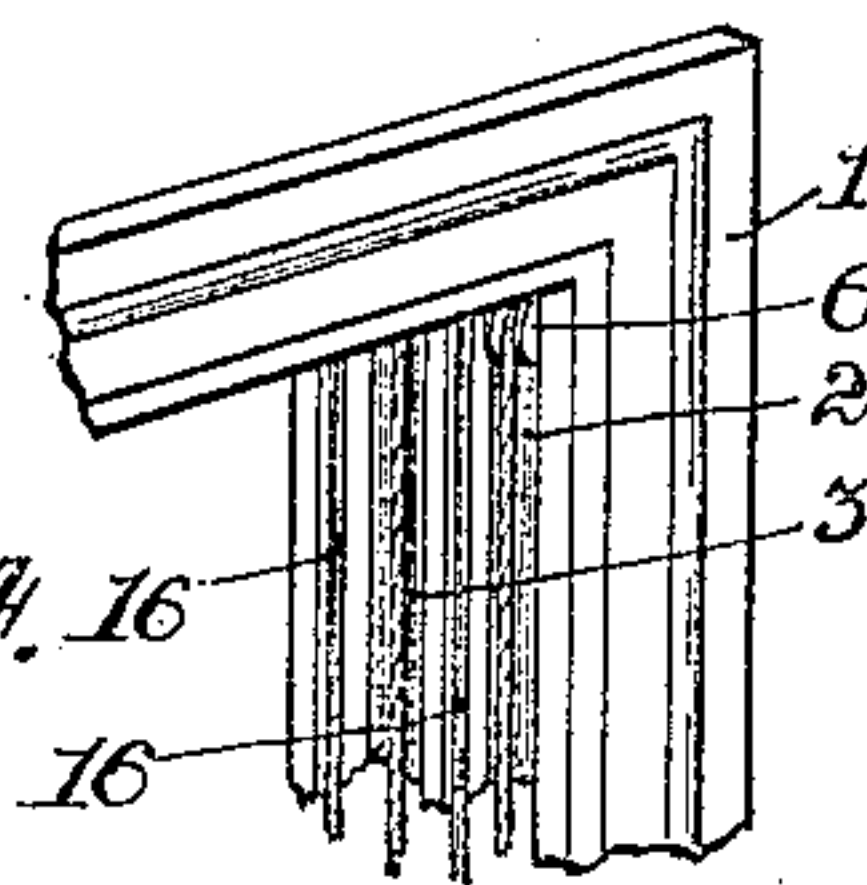
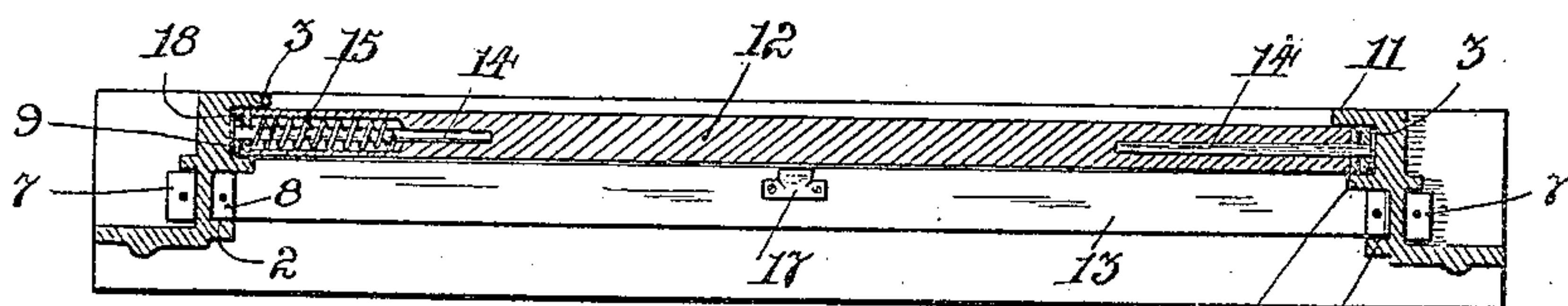


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

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WINDOW.

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To all whom it may concern:

Be it known that I, OVILA BAIGNÉ, a subject of the King of Great Britain, and resident of 19 St. George street, in the city and district of Montreal, in the Province of Quebec, in the Dominion of Canada, have invented certain new and useful Improvements in Windows; and I do hereby declare that the following is a full, clear, and exact description of the same.

The invention relates to improvements in windows, as described in the present specification and illustrated in the accompanying drawings that form part of the same.

The invention consists essentially in the novel construction and arrangement of parts whereby the sashes which are hinged to suitable drop pieces or slides, contained within the vertical grooves in the frame, are made to fold up in their closed position against jutting vertical and horizontal pieces in the window frame and to open and close with the sliding of said drop or slide pieces and balanced by the counter-weights as customary in window construction.

The objects of the invention are to devise a window in which the sashes may be drawn inwardly for the purpose of cleaning the outer surface of the glass, without danger to the person cleaning the window, to provide in such windows a perfectly tight construction so that the ingress of cold, when the window is in its closed position, may be absolutely barred, and generally to increase the efficiency of this particular type of window, without increasing the cost of production.

In the drawings, Figure 1 is a perspective view of the invention showing the sashes half way drawn down from their vertical position. Fig. 2 is a cross sectional view on the line A—B in Fig. 1. Fig. 3 is a perspective detail partially in section to disclose a spring for returning the window to its vertical position. Fig. 4 is a perspective detail of a portion of the frame showing a weather strip applied to the jutting portion.

Like numerals of reference indicate corresponding parts in each figure.

Referring to the drawings, 1 is a window frame having vertical inner and outer grooves or channels 2 and 3 respectively, at each side thereof, in which the cords 4 and 5 travel, said cords passing over the pulleys 6 as customary and having weights 7 on the other side of the frame.

8 and 9 are drop or slide pieces contained within the grooves or channels 2 or 3 respectively and at their upper ends secured to the cords 4 and 5 respectively.

10 and 11 are vertical jutting pieces arranged in the window frame to the outer side of the grooves 2 and 3 respectively and extending beyond the outer faces of the drop or slide pieces 8 and 9, said vertical jutting piece 10 continuing around the top of the frame and made in sections or lengths as usual.

12 and 13 are the sashes, the sash 12 being pivoted at the lower end of its sides to the drop or slide piece 9, and the sash 13 being pivoted at the lower end of its sides to the drop or slide piece 8, the pins 14 of the joint being encircled by the springs 15, which are arranged to return said sashes to their vertical position after being drawn down and held therefrom. It will be seen that the springs 15 return the sashes to their upper positions against the vertical jutting pieces 10 and 11 and it may here be explained that the particular formation of that channel in the window frame is important in this invention, that is to say, the jutting pieces 10 and 11 form the jambs against which the springs 15 hold the sashes. It will also be understood from the description of said springs and their arrangement that the strips, to which the sashes are pivoted, are securely held in their lower position during the cleaning of the window for in swinging the sash inwardly, the tension on the springs brings the said strips into engagement at the upper and lower ends thereof with the walls of the channels, consequently the sash cannot be raised while the sash is in its horizontal position. 16 are weather strips secured to said jambs and here shown as being one means of further tightening the joint between said sashes and said window frame in their closed position to prevent the ingress of cold air.

17 is a window fastener of any suitable type and having its parts secured to the top of the lower sash and the bottom rail of the upper sash as customary.

In the use of this window, the fastener 17 is unlocked and the lower sash drawn downwardly and inwardly with the result that it is in a perfectly horizontal position and may be cleaned with ease and when finished the upper sash may also be pulled down and folded to a horizontal position over the lower

sash and also cleaned thereby doing away entirely with the necessity of standing to the outside of the window. As soon as the glass of the windows is cleaned, the upper sash is raised and swings to its vertical position, completely closing its drop piece into the groove and closing to the vertical jutting pieces of the frame, thus completely closing in the window opening at the top thereof quite as securely as any window not having the particular advantages of this invention. The lower sash, of course, swings into place as soon as the upper sash gets to its vertical position and in the closed position is locked thereto. The lower sash folds up against its particular jutting pieces and against the lower rail of the upper sash, consequently the whole window opening is securely closed and by adding a weather strip or any other suitable means, it may be made perfectly tight, in fact much more so than any ordinary window not having facilities offered by this particular window.

In the vertical positions of the sashes, the operation of the window is precisely similar to any window in regard to lifting up and pulling down, for the counter-weights balance the weight of the sashes and leave them in any position that they are placed in.

The arrangement of the pivot point of the sashes to the said strips or slide pieces in the said grooves is not described at great length herein, but it will be readily understood from the illustrations that the pivot pins 14 must be securely fastened in the said drop or slide pieces and in the present form described, they are secured by simple cross pins 18 passing through said pins and the said slide pieces, thus springs encircling the pins 14 are at one end securely fastened to the pin and at the other end to the sash, the said springs being brought to the necessary tension on pulling the window inwardly in order to carry it back to its vertical position.

19 are spring catches secured to the lower sash adjacent to the top of the said sash,

said catches having the spring-held bolts extending into the grooves 2 and 3 respectively in the vertical position of said sashes and retaining said sashes securely in said vertical positions.

What I claim as my invention is:

1. In a window, the combination with the window frame having vertical channels therein arranged, said channels having the outer side walls jutting toward the window opening beyond the inner side walls, strips slidably arranged in said channels and weights drawing on said strips, of window sashes pivotally secured at their lower ends to the lower ends of said strips and springs suitably arranged in relation to the pivotal fastenings of said sashes and adapted to return said sashes to their upright position and to retain said strips in their lower position in bringing said sashes to their horizontal positions.

2. In a window, the combination with a window frame having vertically arranged pieces jutting inwardly toward the window opening, of a plurality of window sashes adapted to fold upwardly against said jutting pieces, a pair of supporting strips slidably arranged in said frame, pins rigidly secured adjacent to the lower end of said strips and extending inwardly into said sashes and helical springs encircling said pins and secured thereto at one end and at the other end to said window sashes and adapted to hold said sashes against said jutting pieces in the closed position thereof and to hold said strips to their lower position on swinging the sashes to their horizontal positions.

Signed at the city and district of Montreal, in the Province of Quebec, in the Dominion of Canada, this 19th day of February, 1909.

OVILA BAIGNE.

Witnesses:

G. H. TRESIDDER,
RENT PIGEON.