

E. HÉROUX.
WINDOW.

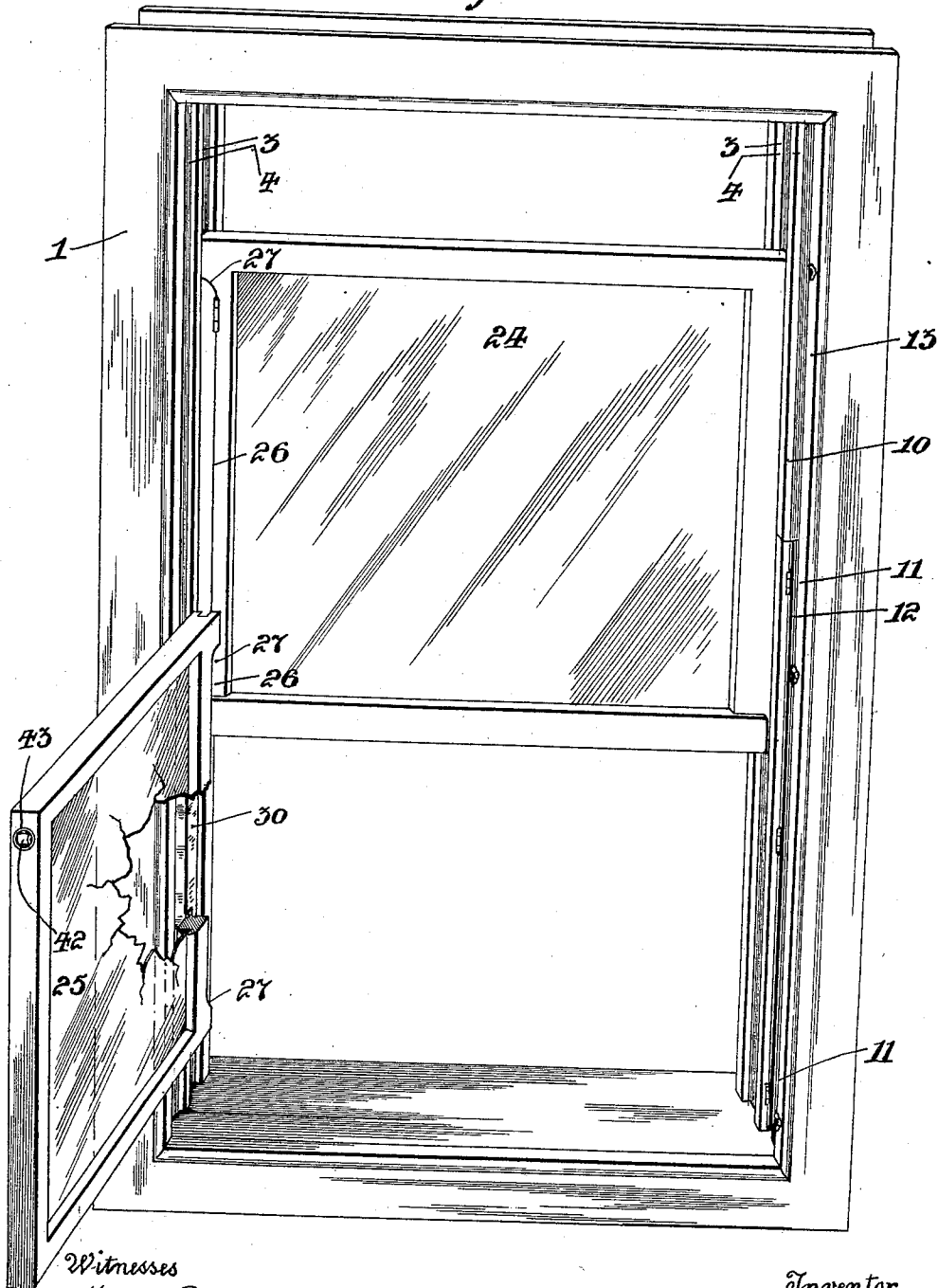
APPLICATION FILED AUG. 22, 1912.

1,085,682.

Patented Feb. 3, 1914.

2 SHEETS—SHEET 1.

Fig. 1.



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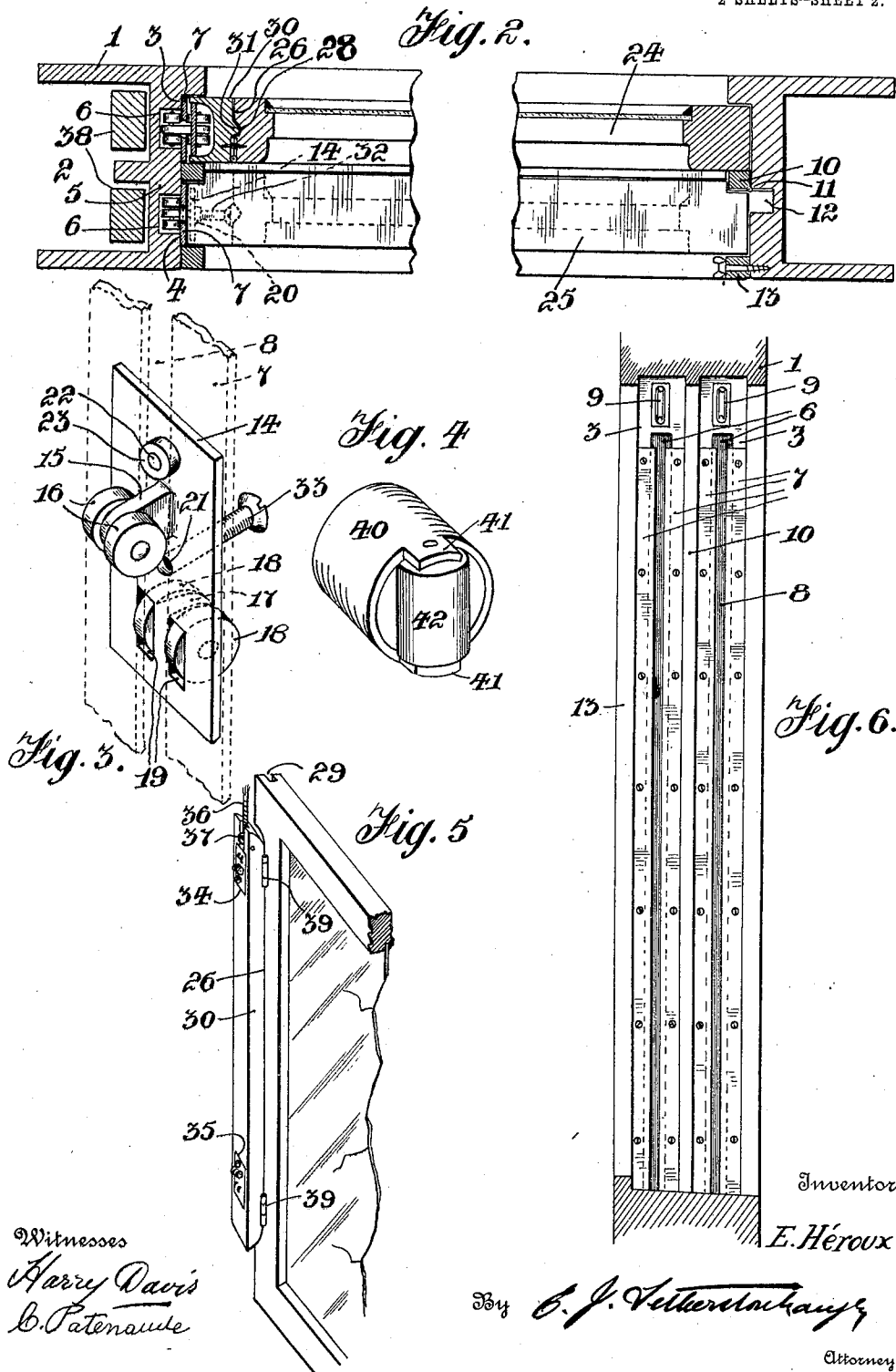
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UNITED STATES PATENT OFFICE.

EDMOND HÉROUX, OF MONTREAL, QUEBEC, CANADA, ASSIGNOR TO CHARLES ALBERT
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WINDOW.

1,085,682.

Specification of Letters Patent.

Patented Feb. 3, 1914.

Application filed August 22, 1912. Serial No. 716,391.

To all whom it may concern:

Be it known that I, EDMOND HÉROUX, a resident of the city and district of Montreal, in the Province of Quebec, in the Dominion of Canada, joiner, 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 sash is supported in a peculiar manner, which insures its easy running with a single weight and cord and at the same time provides all the conveniences of casement and vertically sliding windows.

The objects of the invention are to devise a new form of window readily accessible for cleaning purposes and generally to provide a window of the sliding class easy to operate and simple and cheap to manufacture.

In the drawings, Figure 1 is an inside front perspective view, showing the lower sash in the open position for cleaning and the upper sash in the other position. Fig. 2 is a cross sectional view through the window frame and upper sash. Fig. 3 is a perspective detail of the supporting bracket and rollers. Fig. 4 is a perspective detail of a roller bearing member. Fig. 5 is a perspective detail of the supported side of one of the sashes hinged to a sash supporter. Fig. 6 is an elevation of the inner and supporting side of the frame.

Like numerals of reference indicate corresponding parts in each figure.

Referring to the drawings, 1 is the window frame having at one side thereof the weight cavities 2 behind the vertical slide channels 3 and 4, the division walls 5 being centrally and vertically recessed at 6.

7 are vertical metal plates rigidly secured to the division wall 5 at each side thereof respectively, leaving a central vertical slot 8 therebetween and forming tracks, said plates 7 terminating at the upper end adjacent to the upper end of the recess 6 and at their lower end extending at the bottom of the slide channels 3 and 4.

9 are cord pulleys suitably arranged above

the recess 6 between the cavities 2 and the slide channels 3 and 4.

10 is the parting strip at the other side of the frame, the upper end of said strip being permanent and the lower part being secured by the hinges 11 and adapted to turn inwardly within the groove 12 to provide a flush surface for the inward swing of the sashes.

13 are the inner strips, at one side being readily removable to allow the inward swing of the sashes.

14 is a plate bracket having from the rear side toward one end the lug 15, forming a bearing for the rollers 16, and on the front side toward the other end the lug 17 forming a bearing for the rollers 18, said rollers 18 extending through the slots 19. Said plate also has a center boss 20 on the front side and a threaded hole 21 through said boss and plate.

22 is a pivot bearing extending from the rear side of the plate 14 between the lug 15 and the end of the plate. 23 is a roller journaled on said pivot 22 at right angles to the rollers 16.

It will now be seen that when the rollers 16 are inserted in the recess 6 above the track plate 7, that the said rollers 16 will travel on the back sides of said plate 7, while the roller 23 will engage the edge faces of said plate 7 and the rollers 18 the outer sides of said plates through the slots 19; therefore there are rollers turning on all track surfaces of said plates 7. The plate brackets 14 are supplied in a sufficient number to support the sashes but in the accompanying drawings two are provided to a sash.

24 and 25 are the upper and lower sashes respectively, each of said sashes having a recess 26 on one side thereof preferably curved at 27 at each end to the vertical edge face, said recesses having the vertical central grooves 28 and in said vertical edge face at the upper end having the cord channel 29.

30 are the sash supporters each having a vertical bead 31 entering the grooves 28 thus forming a protection against the inclemencies of the weather; the said supporters 30 also have the screw holes 32, into which are inserted the screws 33, said screws being correspondingly threaded and enter-

ing the bosses 20 of the plate brackets 14. The said sash supporters 30 are recessed at the rear side at 34 and 35 thus providing room for the rollers 18 and boss 20, as well as at their upper ends providing room for the knotted end of the cord 36, which cord is preferably knotted around or behind the pin 37 extending across the open end of the recess 34.

38 are weights attached to the cords 36 and traveling up and down in the weight cavities 2.

39 are hinges connecting the sashes 24 and 25 to the sash supporters 30, so that the said sashes may be swung inwardly.

40 is a bearing formed of a short piece of externally threaded tube having the outwardly extending ears 41 at one end, between which a roller 42 is journaled, said bearing 40 being screwed into a corresponding recess 43 at the upper end of the opposite edge face to the supported side and adapted to facilitate the operation thereof.

The operation of this window will be readily understood from the description of the details but in order to make it perfectly clear a little further explanation will be given.

To open the lower sash the said sash is lifted as in any ordinary sliding window and is held open by the weight of the cord attached to the sash supporter. In the same manner the upper sash may be pulled down

and is similarly held to whatever position it is placed in, but to open these sashes inwardly for cleaning or other purposes the removable inner strip is taken off and then the lower sash is simply swung inwardly on its hinges and to do the same with the upper sash the hinged part of the parting strip is turned into its groove and the said upper sash swung inwardly.

What I claim is:—

In a device of the class described, a vertically rolling bracket formed of a plate adapted to be connected with the sash and having roller slots therethrough toward the lower end, a lug projecting inwardly between said slots, rollers pivotally supported from said lug and extending in rotation through said slots, a lug projecting outwardly toward the upper end of said plate, rollers pivotally supported from the upper lug, and metal bars forming tracks adapted to be secured to the window frames at the sash grooves and engaged on one side by the lower rollers and on the other side by the upper rollers.

Signed at the city and district of Montreal, Quebec, Canada this sixth day of August 1912.

EDMOND HÉROUX.

Witnesses:

HARRY DAVIS,
C. PATENAUDE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."