

No. 639,866.

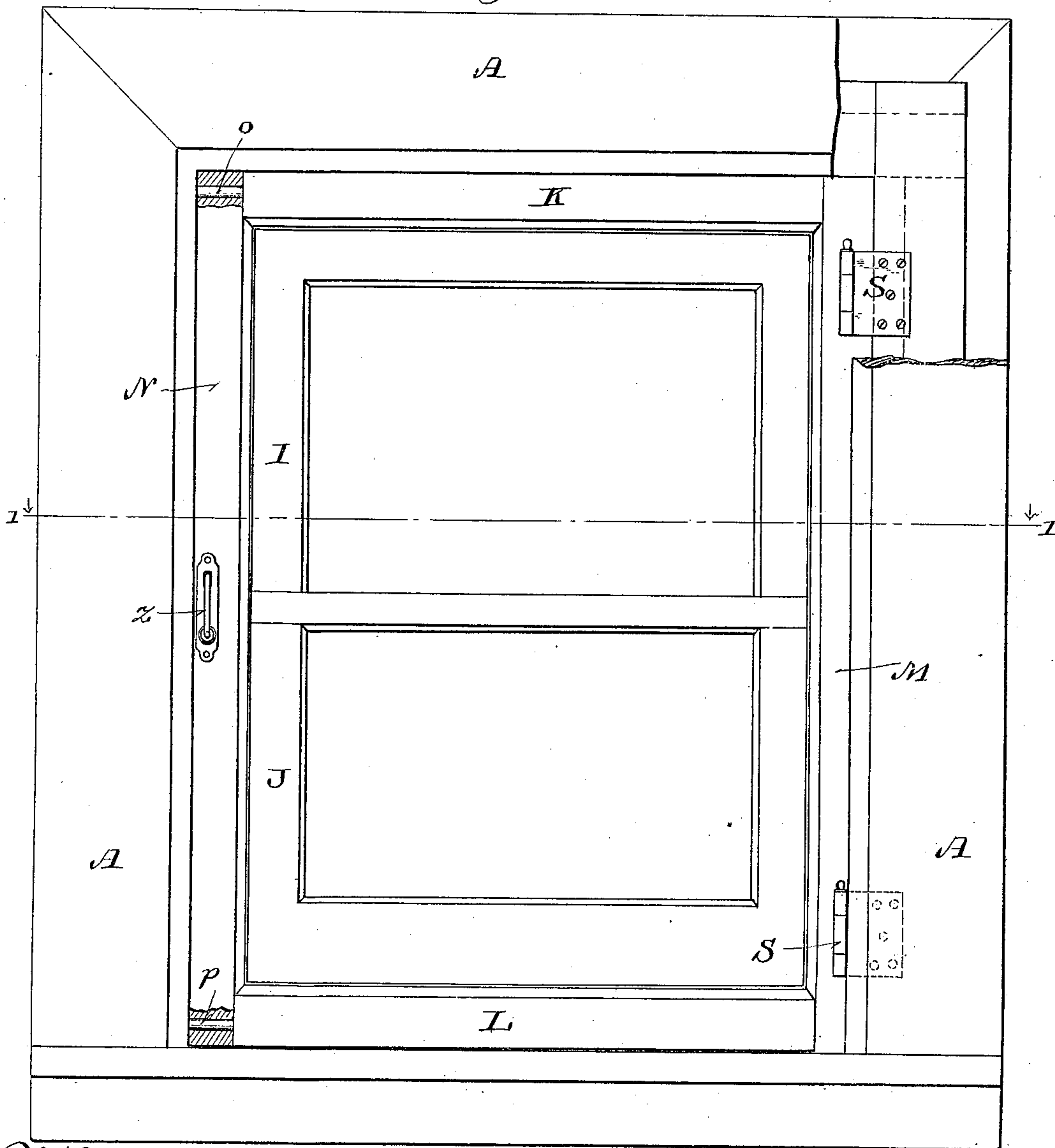
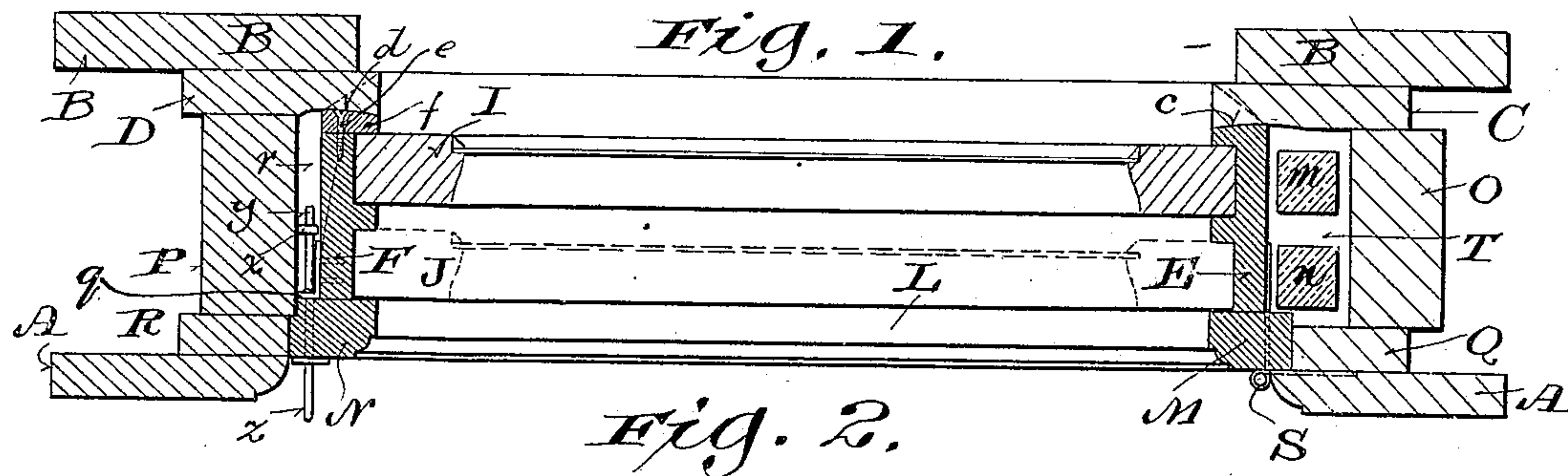
Patented Dec. 26, 1899.

W. ROMUENDER.
WINDOW FRAME.

(Application filed Dec. 27, 1898.)

(No Model.)

3 Sheets—Sheet 1.



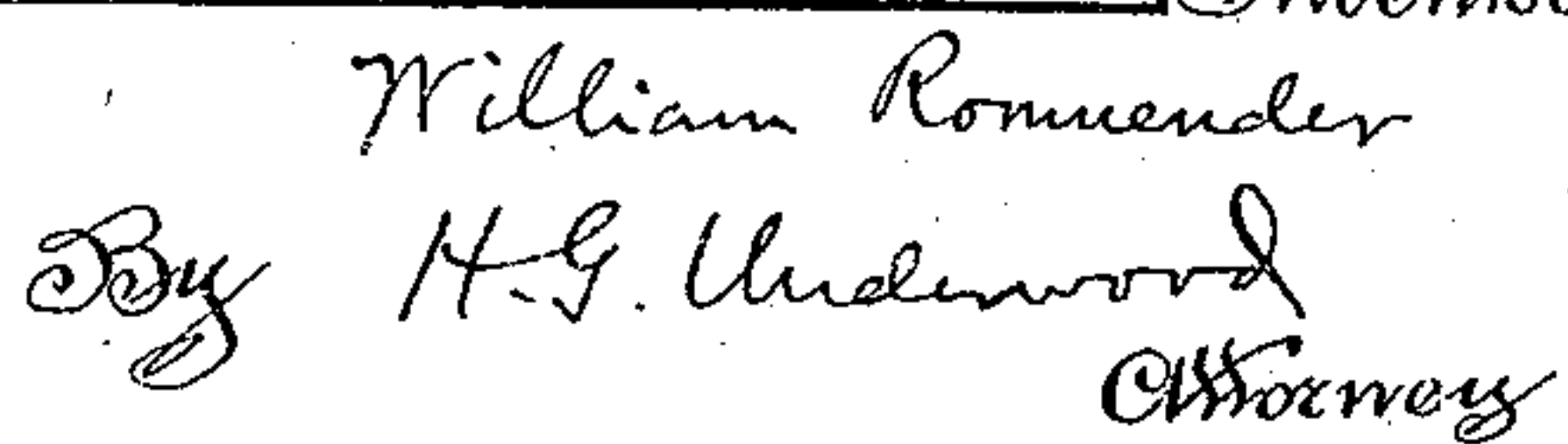
Witnesses
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3 Sheets—Sheet 2.



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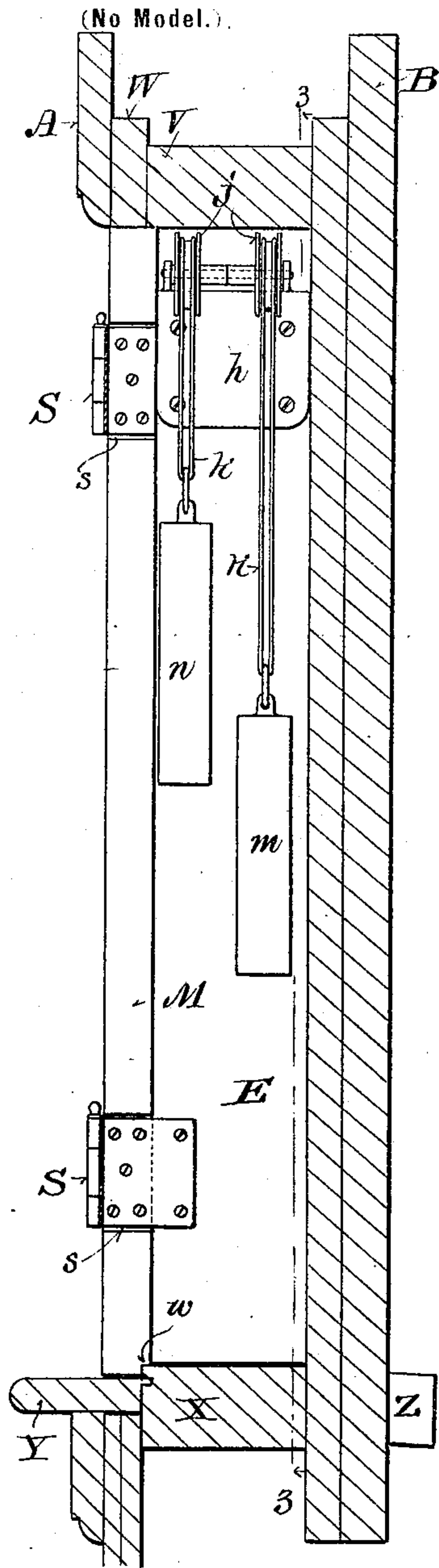


Fig. 5.

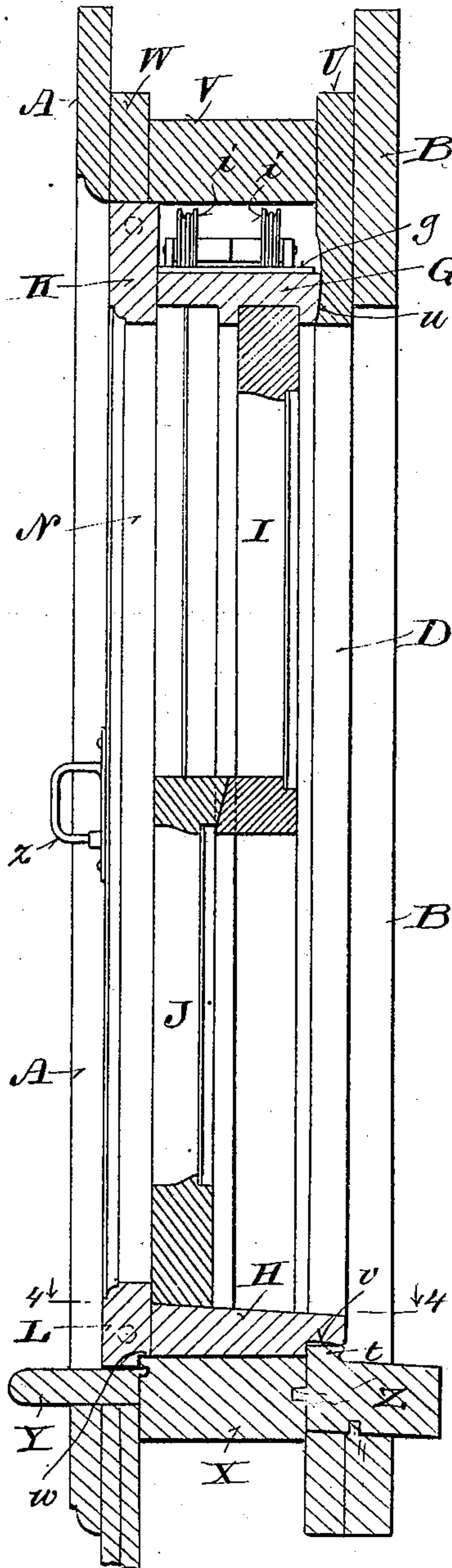


Fig. 6.

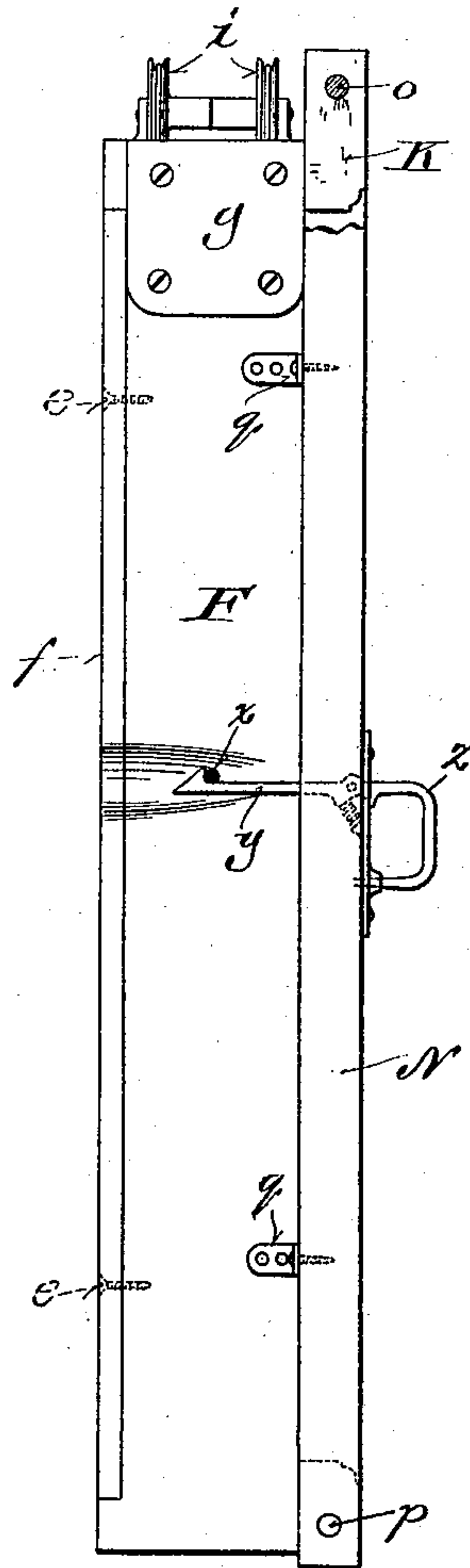


Fig. 7.

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UNITED STATES PATENT OFFICE.

WILLIAM ROMUENDER, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF ONE-HALF TO EDWARD J. FELLMAN, OF SAME PLACE.

WINDOW-FRAME.

SPECIFICATION forming part of Letters Patent No. 639,866, dated December 26, 1899.

Application filed December 27, 1898. Serial No. 700,316. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ROMUENDER, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Window-Frames; and I do hereby declare that the following is a full, clear, and exact description thereof.

10 My invention relates to the construction of window-frames; and it consists in certain peculiarities of construction and combination of parts, as will be fully set forth hereinafter and subsequently claimed.

15 In the drawings, Figure 1 is a horizontal sectional view of a window-frame embodying my present invention, taken on the line 1 1 in Fig. 2. Fig. 2 is an inside elevation of the said frame partially broken away to better illustrate certain details of construction. Fig. 20 3 is a view of the said frame from the outside, partly in elevation and partly in section, on the plane indicated by the line 3 3 in Fig. 5. Fig. 4 is a horizontal sectional view on the plane indicated by line 4 4 in Fig. 6. Figs. 25 5 and 6 are vertical sectional views on the planes indicated by the lines 5 5 and 6 6, respectively, in Fig. 3. Fig. 7 is an edge view of the swinging section of the said window-frame.

30 The object of my invention is the production of an inwardly-swinging window-frame section, whereby that portion of the frame that supports the window-sashes may be 35 bodily swung inward upon hinges, carrying the said sashes with it, for cleaning or other purposes, and then replaced in normal position, the whole being so constructed as to prevent the ingress of air or of snow or rain when 40 in use.

Referring to the drawings, A A A represent the inner casing, and B B B the outer casing, of my window-frame.

45 C D represent the vertical blind-stops, one at each side, the said blind-stops being formed with concave surfaces *c d* on their inner front faces to receive the correspondingly-shaped outer vertical edges of the swinging section of the frame. This latter comprises the vertical end portions E F, (the former being 50 made in one piece, while the latter is com-

pleted by the separate removable vertical strip *f*, held to the main part of F by screws *e e*.) the horizontally-extending top portion G and bottom portion H, upper sash I, lower 55 sash J, and the inner section-casing formed of the top portion K, bottom portion L, and vertical portions M N.

O P represent vertical studs whose outer vertical edges abut against the blind-stops C 60 D and whose inner vertical edges abut against the inner vertical stops Q R, the vertical portions of the inner casing A being secured to the adjacent surface of said stops Q R. S S represent hinges, one leaf of each hinge being 65 secured between the stop Q and the adjacent face of the vertical portion of said casing A, while the other leaf of each hinge is secured to the adjacent end of the swinging section of the frame, the edge of the part M being 70 recessed, as shown at *s* in Fig. 5. The vertical stud P projects inwardly beyond the inner line of the stop R, so as to come quite near to the outer face of the end portion F, leaving a narrow space *r* between the parts 75 P and F to afford a clearance for the swinging section in its opening and closing movements, while the vertical stud O is set at quite a distance from the opposed outer face of the end portion E in order to afford space for a 80 weight-pocket T, all as shown best in Fig. 1.

Angle-plates *g h* are secured to the upper corners of the swinging section of the frame and serve not only to firmly unite the pieces of which said corners are composed, but also 85 serve as brackets for the weight-cord rollers *i j*, the top portion G of said swinging section being cut out, as well as portions of the said angle-plates, to accommodate said rollers, as best shown in Fig. 3, the cords *k k* extending 90 over said rollers from the weights *m n* to the sashes I J. In order to insert or remove the lower sash J, the vertical portion N is made removable, being provided with upper and 95 lower transverse perforations, which receive dowel-pins *o p*, projecting, respectively, from the adjacent ends of the top and bottom horizontal portions K L and said part N when the sash J is in place, being secured to the end portion F by means of the angle-pieces *q q*, 100 screwed to the said parts F N, as best shown in Fig. 7. Similarly in order to insert or re-

move the upper sash I the removable strip *f* is provided, secured to the end portion *F*, as already stated. The partition-strips between the sashes are made integral with the end portions *E F*, as shown in Figs. 1 and 3.

U represents the upper horizontal blind-stop, formed with a lower horizontal concave inner surface *u* to snugly fit the adjacent convex edge of the top portion *G* of the swinging section when the latter is closed, and similarly the described concave inner surfaces *c d* of the vertical blind-stops *C D* snugly fit against or receive the adjacent convex edge surfaces of the end portions *E F* of said swinging section when the latter is closed to more securely guard against the admission of air, rain, or snow, and for a like purpose the outer window-sill *Z* is formed with a shoulder *t* along its inner upper edge, and the bottom portion *H* of the swinging section is formed with a rabbet *v* along its outer lower edge to receive the said shoulder *t*.

V is a horizontal stud extending from side to side of the window-frame and forming, with the horizontal part *w*, the top thereof. *X* is the lower horizontal stud, and *Y* the inner window-sill. When the swinging section is closed, the top of its inner casing fits snugly against the adjacent lower surfaces of the said parts *W V*, and the bottom of the inner casing of said swinging section is formed with a longitudinal rabbet *w* to receive and fit against the upper inner edge of the lower horizontal stud *X*, all as best shown in Fig. 6.

The swinging section is kept closed by any suitable catch—such, for example, as the pin *x*, projecting from the vertical stud *P* into the space *r*, in engagement with the latch *y*, attached, with its operating lever-handle *z*, to the vertical piece *N*, as best shown in Figs. 1 and 7.

In addition to the advantage of ready accessibility to both sides of the sashes for the purpose of cleaning the glass from the interior of the room there is a further advantage in my inwardly-swinging frame-section in that all parts of the same may be painted, as well as the parts against which said section abuts when closed, thus adding to the permanency of the device and the ease with which the various parts of the said swinging section can be cleaned and kept clean, as well as insuring the safety of the person engaged in this cleaning, which is a very important matter, while at the same time by the hereinbefore-described peculiarities of construction air, dust, snow, and rain are practically as well excluded as with the old-style permanent frames. Again, by my described construction access to the sash-weights can always be had when the hinged frame-section is swung inwardly for the repair or replacement of the sash-cords or other purposes without being compelled to remove any stationary part of the window-frame, which is a great convenience and advantage.

Another advantage of my described construction lies in the fact that the permanent portions of the window-frame (omitting the described swinging section) may all be built into the building as the erection of the latter proceeds, and any suitable storm-window or analogous device may be applied to the exterior of said frame to close the opening, thereby allowing the said swinging section to remain in the factory until the completion of the building, and thus avoid exposing the said swinging section to accident or injury during all this time, and then when ready the said section may be quickly and easily applied, the hinges *S* being of the well-known separable construction and one leaf of each hinge being secured to the said permanent portion of the window-frame.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a window-frame, the combination with the permanent outer casing, of an inwardly-swinging horizontally-moving frame-section, hinged to said permanent outer casing and carrying vertically-movable sashes, rollers pivotally secured to and above the upper member of said swinging section, weight-cords passing over said rollers to said sashes, and weights secured to the other ends of said cords, whereby the overhead pulleys, weight-cords and weights will be exposed when the said swinging section is moved inward.

2. In a window-frame, the combination with the permanent outer casing, studs and inner casing, of permanent vertical and horizontal blind-stops, secured thereto, and having inner concave surfaces, and an inwardly-swinging frame-section, hinged to the permanent portion of the casing, and carrying the movable sashes and sash-weights, and having the outer edges of its end or side, and top portions formed with corresponding convex surfaces to fit snugly within the described concave surfaces of the said blind-stops.

3. In a window-frame, the combination with the vertical inner and outer stops at one side of the frame-casing, and a transverse vertical stud connecting said stops adjacent to their outer ends to form a weight-pocket, of an inwardly-swinging frame-section carrying the inside movable sashes and sash-weights, hinged to the upper and lower portions of said inner vertical stop of the frame-casing, and adapted to expose the weights and sash-cords when the said swinging section is moved inward.

In testimony that I claim the foregoing I have hereto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

WILLIAM ROMUENDER.

Witnesses:

H. G. UNDERWOOD,
B. C. ROLOFF.