(No Model.)

J. W. CAMERON.

WINDOW.

No. 491,279. Patented Feb. 7, 1893.

Fig. 5.

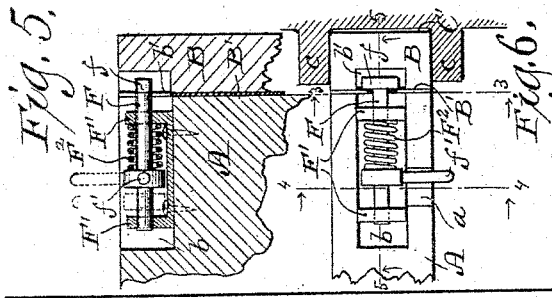


Fig. 6.

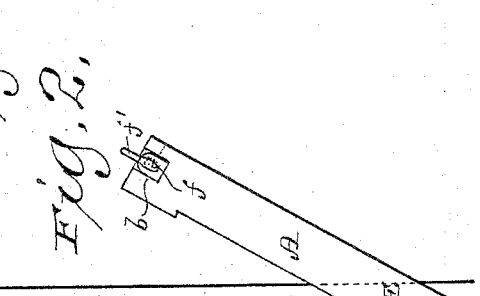


Fig. 2.

Fig. 4.

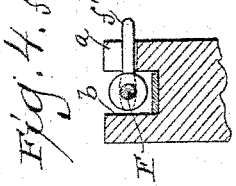


Fig. 3.

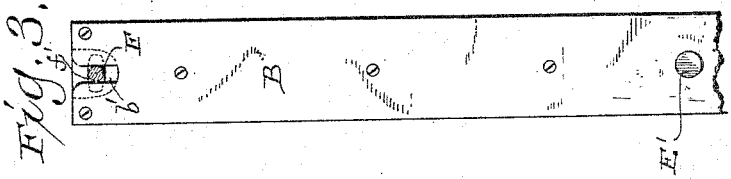
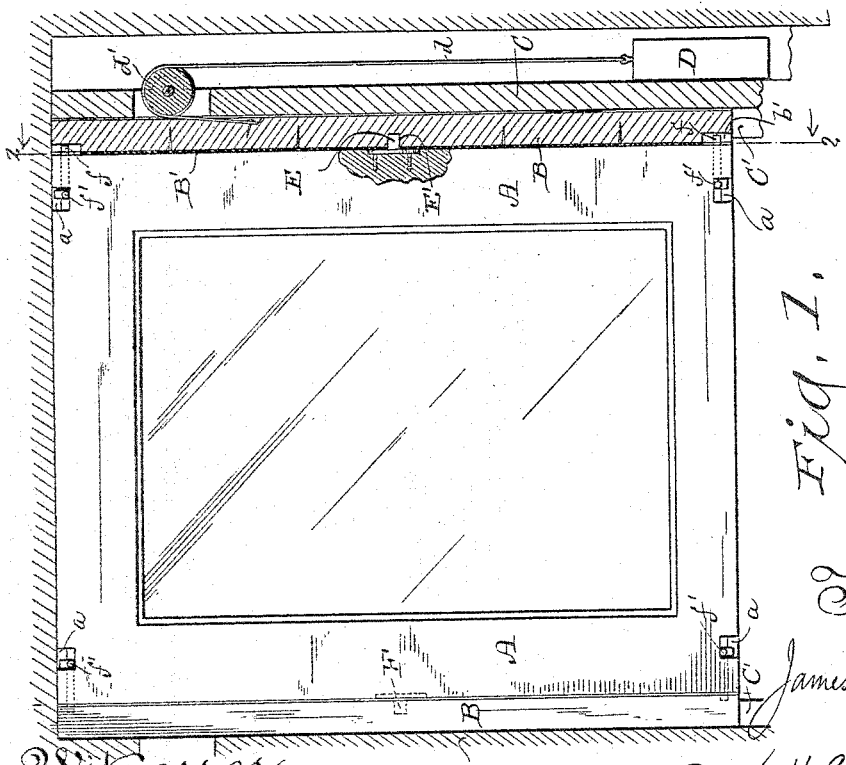


Fig. 1.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES W. CAMERON, OF WEST BEND, WISCONSIN.

WINDOW.

SPECIFICATION forming part of Letters Patent No. 491,279, dated February 7, 1893.

Application filed May 15, 1891. Serial No. 392,837. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. CAMERON, a citizen of the United States, and a resident of West Bend, in the county of Washington, and in the State of Wisconsin, have invented certain new and useful Improvements in Windows; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to certain new and useful improvements in the construction of windows and consists in the matters hereinafter described and pointed out in the appended claims.

In the accompanying drawings illustrating my invention: Figure 1— is an elevation of a window sash constructed in accordance with my invention, and showing the window casing in section on line 1—1 of Fig. 2. Fig. 2— is a vertical section taken on line 2—2, of Fig. 1. Fig. 3— is a vertical section on line 3—3, of Fig. 6. Fig. 4— is a detail sectional view on line 4—4, of Fig. 6. Fig. 5— is a detail sectional view on line 5—4, of Fig. 6. Fig. 6— is a detail plan view of one corner of the window sash.

A represents the window sash, B B side pieces arranged to move vertically between the usual guide strips C′ C′ upon the inside of the casing C and provided with the usual parting strips or beads *c c*, the side pieces B B being provided with metal facings B′ B′. The sash A is pivotally connected with the side pieces B B in any suitable manner, as for instance, by means of trunnions E E upon said sash engaged with sockets E′ E′. formed in said side pieces. These pivotal connections between the sash and the side strips are made at the central portion of the sash so that said sash may be rotated about said connections to bring either side of the sash to the inside of the window as may be desired. The usual weights D may be attached to the vertically movable side strips B B by means of cords *d* passed over pulleys *d′* and engaged with the upper ends of the side strips as shown in Fig. 1 of the drawings.

The sash A is normally held stationary between the side strips B B by any suitable catches or fastenings such for instance, as shown in the drawings, in which spring pins F F are provided, said pins being journaled in suitable supports F′ F′ located in mortises *b*, *b* at the corners of the sash and arranged to engage with the side strips B B to hold the sash from rotation between the same. The spring pins F F are provided with cross pieces *f f* upon their outer ends forming T-shaped heads and slots *b′ b′* are formed in the metal facings of the outer strips B B, said slots being of sufficient size to permit the said T-heads of the spring pins F F to be passed through the same, and the strips are cut away at the rear of the slotted portions of the metal facings so as to permit the said pins to be turned to bring the cross pieces upon their ends at right angles to the said slots. The pins F F are arranged to move longitudinally in the bearings F′ F′, and springs F^2 F^2 are located around said pins and each arranged to bear against one of said bearings and against a collar upon the inner end of one of said pins, so as to exert a constant inward pressure upon said pins.

Handles *f′ f′* are provided upon the pins F F by means of which said pins may be rotated so as to bring the cross pieces upon the ends of the said pins into a position to register with the slots in the facings B′ B′. Slots *a a* are formed in the casing A through which the handles *f′ f′* extend so as to enable the same to be readily operated to turn the pins F F within the bearings F′ F′.

The operation of my improved device is as follows: The sash is normally locked between the vertically movable side strips, in which condition the sash together with the said side strips may be moved up or down at will. When it is desired to wash the windows, the operator grasps the projecting handles upon the spring pins F F and rotates said pins as before described, so as to bring the cross pieces upon the ends of the same into register with the slots *b′ b′*, when the springs F^2 F^2 will press the pins inwardly so as to withdraw said ends from said slots, thus freeing the sash from engagement with the side strips B B. The sash may now be turned so as to bring either side toward the inside of the window, and the operation of cleaning and washing the windows thereby greatly facilitated. This is a very great advantage over the ordinary

forms of construction, from the fact that the operation of washing the windows, besides being rendered easier, is rendered safe.

Accidents often happen on account of the necessity of persons getting upon the outside of the window in order to wash the outside of the same, it being often necessary for him to stand upon the window sill at a considerable distance from the ground, and it sometimes happens that he loses his footing and falls to the ground and is killed or severely injured. By my improved construction, this disadvantage is entirely overcome, and the absolute safety of the person washing the windows is insured.

By the arrangement of the spring fastening devices shown in the drawings and herein described, the T ends of the pins F F being engaged within the slotted portions of the metal facings of the side strips B B, will by reason of the inward pressure of the springs F^2 F^2 serve to hold the sash firmly in position between said side pieces and prevent any rattling of the sash.

I claim as my invention:

1. The combination with a window casing, of vertically movable strips engaged with the inner surfaces of said casing, a window sash located between and pivoted to said strips, recesses formed in the upper and lower ends of said strips, metallic facings upon the inner surfaces of the strips and provided with elongated slots communicating with said recesses, and locking pins revolubly seated in mortises in the corners of the sash and provided with T-shaped ends for engagement with said metallic facings at the sides of said slots, substantially as described.

2. The combination with a window casing, of vertically movable strips engaged with the inner surfaces of said casing, a window sash located between and pivoted to said strips, recesses formed in the upper and lower ends of said strips, metallic facings upon the inner surfaces of the strips and provided with elongated slots communicating with said recesses, locking pins revolubly seated in mortises in the corners of the sash and provided with T-shaped ends for engagement with said metallic facings at the sides of said slots, angular projections upon said pins for rotating the same, and springs for automatically retracting said pins when they are freed from engagement with said slots, substantially as described.

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

JAMES W. CAMERON.

Witnesses:
H. G. UNDERWOOD,
JOHN E. WILES.