

D. N. Dunzack,

Cash Balance.

N^o 13,124.

Patented June 26, 1855.

Fig:1.

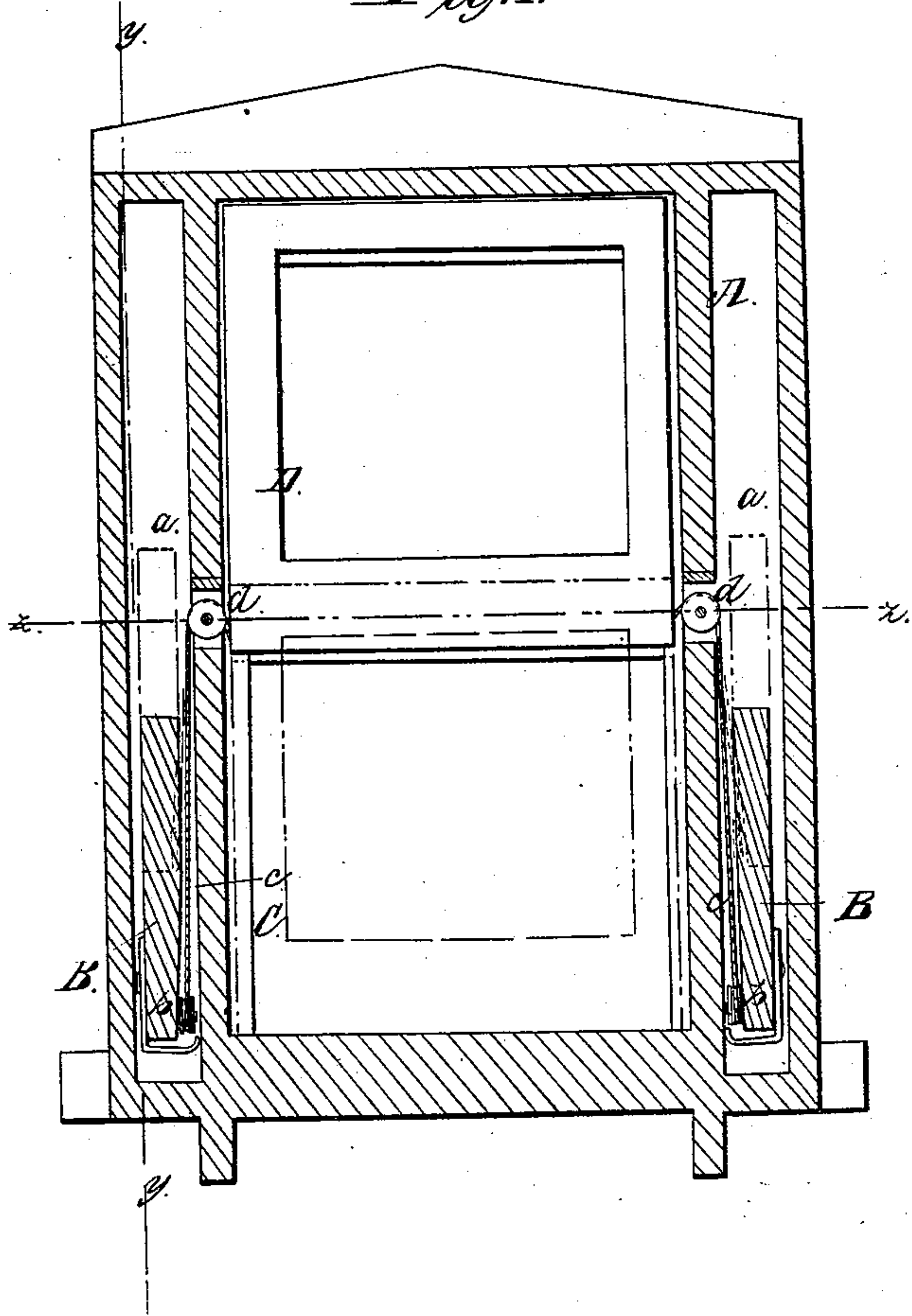


Fig: 2.

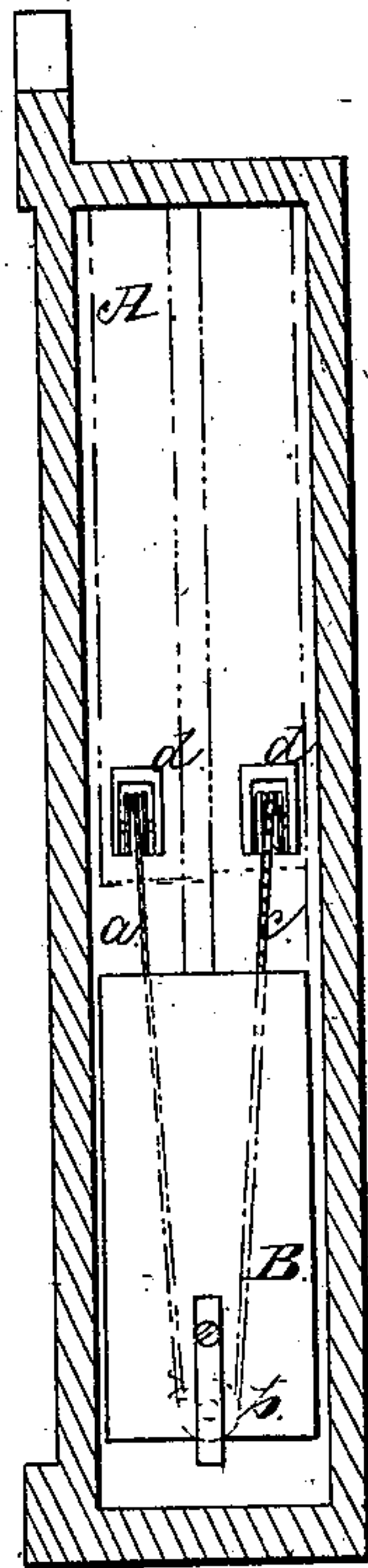
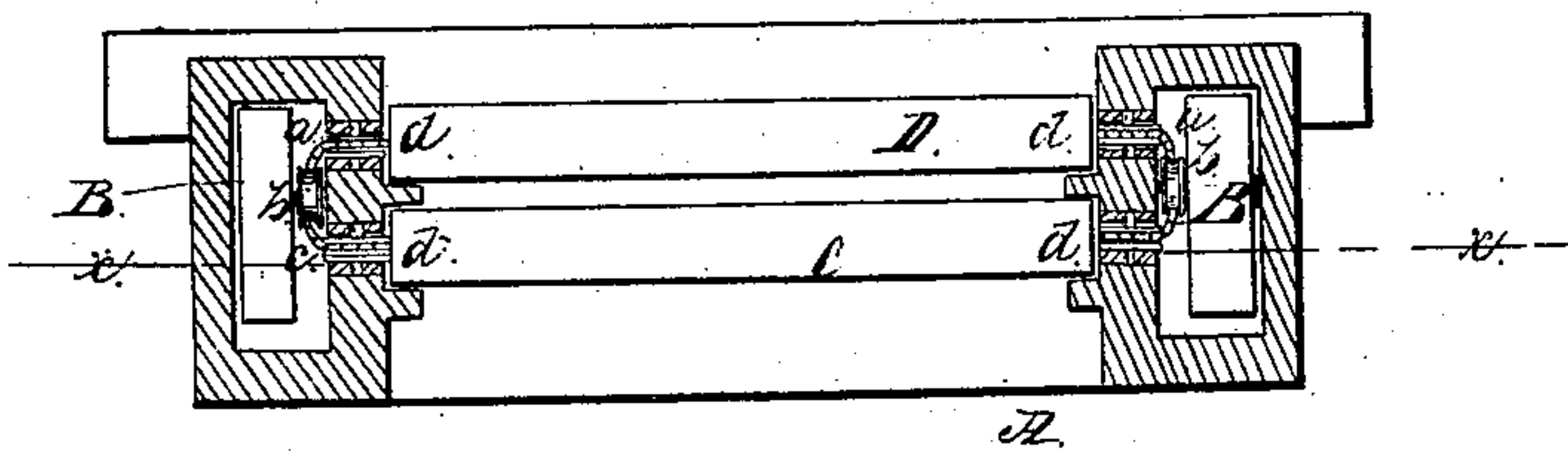


Fig: 3.



UNITED STATES PATENT OFFICE.

DANIEL N. DUNZACK, OF SALEM, MASSACHUSETTS.

MODE OF HANGING WINDOW-SASHES.

Specification of Letters Patent No. 13,124, dated June 26, 1855.

To all whom it may concern:

Be it known that I, D. N. DUNZACK, of Salem, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Flanging Window-Sashes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a vertical section of my improvement, *x, x*, Fig. 3, showing the plane of section. Fig. 2, is a vertical section of ditto taken at the line, *y, y*, Fig. 1. Fig. 3, is a horizontal section taken at the line, *z, z*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

The nature of my invention consists in the peculiar manner of hanging the sashes as will be presently shown and described.

A, represents the window frame or casing, which is constructed substantially the same as those now in use for balanced sashes, viz, provided with boxes, *a, a*, one at each side of the frame or casing. Within each box, *a*, there is placed one weight B. These weights have each a pulley, *b*, attached to their lower ends, around which cords, *c*, pass, said cords also passing over pulleys, *d*, attached to the center of the frame, as shown in Figs. 1 and 2. Both ends of the cords pass over the pulleys, *d*, there being two pulleys, *d*, at each side of the frame or casing A. One end of each cord, *c*, is attached to the lower ends of the sides of the lower sash C, of the window and the other ends of the cords are attached to the sides of the upper sash D, at their lower ends. The attachment to both sashes is shown in Fig. 3.

By the above arrangement it will be seen that there is only one weight within each box, *a*, and consequently only one pair of weights to the two sashes.

The weights as the sashes are raised and lowered do not rise more than half the height of the boxes, *a*, and they move quite slowly, only with about half the speed of the sashes, and without any jarring or noise. The weights may be made in the form of wooden boxes, and filled with sand or lead till the requisite weight is obtained. By having the pulleys, *d, d*, attached to the center parts of the frame or casing A, the pulleys are never exposed, neither are the cords, and the sashes in consequence of the cords being attached to their lower ends may be readily removed from the frame or casing, and turned around for the purpose of cleaning, glazing, etc., without detaching the ends from the sashes, or the weights from the cords. The weights do not require to be so heavy as the two pairs of weights which are now employed, for instance, sashes as now hung, and of about 28 lbs. weight require two weights each of 7 lbs. weight 28 lbs. in all, whereas by my improvement the weights of 9 lbs. each, 18 lbs. in all are sufficient, thus making if iron is used, a difference of 10 lbs. in the weight of metal.

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

Attaching the cords, *c*, to the lower ends of both sashes C, D, and having said cords pass through pulleys, *b*, attached to the weights B, the cord at each side of the frame or casing being attached to both sashes, said cord passing over pulleys, *d*, at the center of the frame or casing, substantially as herein shown and described.

DANIEL N. DUNZACK.

Witnesses:

HENRY B. SMITH,
SILSBEE DEAN.