(No Model.)

P. H. FOX.

SASH BALANCE.

No. 247,187. Patented Sept. 20, 1881.

Fig. 1.

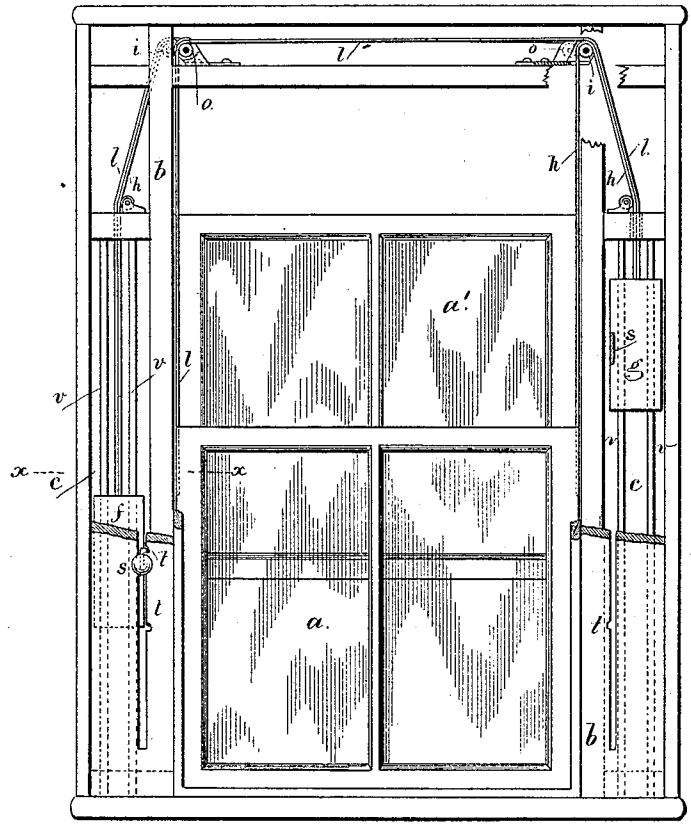
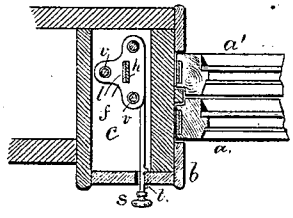


Fig. 2.



Witnesses

Chas. H. Smith

J. Hale

Inventor

Patrick H. Fox.

per Lemuel W. Serrell

atty

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

PATRICK H. FOX, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND EDWIN M. FOX, OF NEW YORK, N. Y.

SASH-BALANCE.

SPECIFICATION forming part of Letters Patent No. 247,187, dated September 20, 1881.

Application filed February 10, 1881. (No model.)

To all whom it may concern:

Be it known that I, PATRICK H. FOX, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Sash Weights and Fastenings, of which the following is a specification.

Sashes have been counterbalanced by weights at one or both sides connected to the sashes by cords passing over pulleys, and in some instances one weight has been connected to two cords.

My present invention consists in the combination, with the sash and one weight, of two cords passing over pulleys to opposite edges of the sash, so that the sash will be raised and lowered equally at both edges, and a handle connected with the weight and projecting through a longitudinal slot in the window-casing, so that by raising or lowering the weight the sash will be moved.

In the drawings, Figure 1 is an elevation of the window-sashes, with the window-frame partially in section; and Fig. 2 is a horizontal section at the line *x x*.

a a' represent window-sashes fitted to slide up or down within the window-frame *b*, and *c c* are the weight-boxes at each side of the window-frame. The weight *f* is for the upper sash, and the weight *g* is for the lower sash.

The arrangements of the pulleys, cords, or straps for each sash being the same, it is only necessary to describe the appliances for one sash.

The cord or strap *h* is fastened to one edge of the sash *a*, and goes over the pulley *i* and descends directly to the weight *g*, and the cord or strap *l* passes from the opposite edge of the sash up over the pulley *o*, across the head of the window and over the pulley *i*, or a second sheave on the same axis, and descends to the weight *g*. Hence if the weight is raised or lowered the sash will be moved bodily up or down in the window-frame.

Attached to the weight *f* there is a handle, *s*, that projects through a vertical slot in the casing of the weight-box, and it terminates in a suitable head, by means of which the weight can be moved up or down, and the handle may be secured at any desired place by being swung laterally into one of the notches at the edge of the slot, as at *t t*, or a clamp may be used to screw the handle firmly at the casing, and so hold the weight at the place to which it may be moved, thus operating the sash and locking it without touching the sash itself. This is a great advantage, especially in high windows in public buildings.

I remark that it is preferable to employ a connection from the bottom of the weight *g* down beneath a pulley to the lower sash, so as to serve to hold the sash down and lock the same when the weight is raised and clamped.

In some cases it may be preferable to connect the handle to the weight by a vertical metal rod, so that the weight can be pushed up higher than a person can reach conveniently, and in that case the handle may be drawn down to the floor, and the weight only be moved down to the window-sill.

The weight may slide upon one or more vertical rods or bars, *v*, by which it is guided and kept in position.

I claim as my invention—

The combination, with the sash and one counterbalancing-weight, of a cord or strap from one edge of the sash over the pulley *i*, another cord or strap from the opposite edge over the pulleys *o* and *i*, and both connected to the weight, and a handle for moving the weight and opening or closing the sash.

Signed by me this 4th day of February, A. D. 1881.

PATRICK H. FOX.

Witnesses:

WILLIAM G. MOTT,

GEO. T. PINCKNEY.