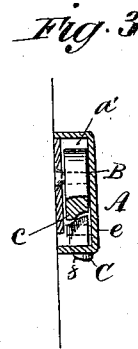
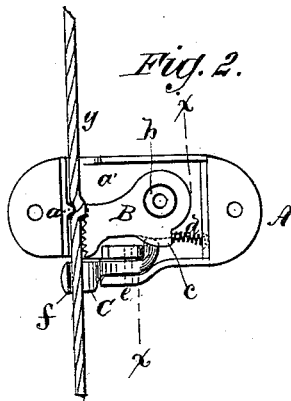
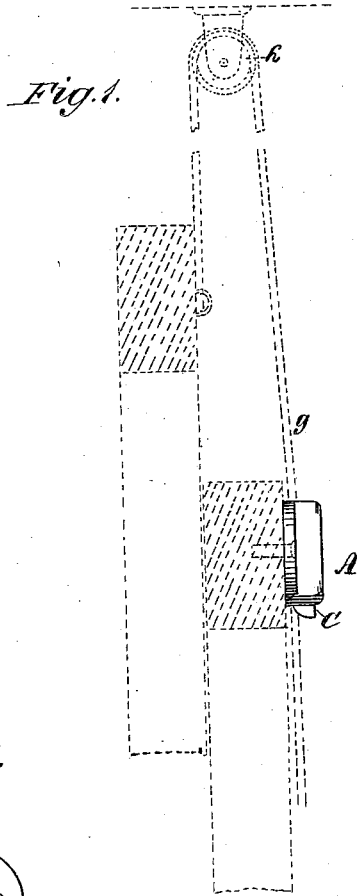


A. KOLB & C. OSBERGHAUS.  
SASH-BALANCES.

No. 192,438.

Patented June 26, 1877.



WITNESSES:  
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ATTORNEYS.

# UNITED STATES PATENT OFFICE.

ADAM KOLB AND CHARLES OSBERGHAUS, OF SANDUSKY, OHIO.

## IMPROVEMENT IN SASH-BALANCES.

Specification forming part of Letters Patent No. **192,438**, dated June 26, 1877; application filed May 12, 1877.

*To all whom it may concern:*

Be it known that we, ADAM KOLB and CHARLES OSBERGHAUS, of Sandusky, in the county of Erie and State of Ohio, have invented a new and Improved Cord-Fastener for Sash-Balance, of which the following is a specification:

Figure 1 is a side elevation of our improved cord-fastener. Fig. 2 is a rear view, showing internal working parts. Fig. 3 is a vertical section on line *x x* in Fig. 2.

Similar letters of reference indicate corresponding parts.

Our invention consists in a casing containing a serrated cam or pawl for clamping the cord and a lever for moving the cam for releasing the cord, as hereinafter more fully described and claimed.

In the drawing, A is a casing, having the chamber *a*, in which there is a stud, *b*, upon which is placed the serrated cam B, which is capable of binding the cord securely against the projection *a* at the side of the chamber *a'*, as it is drawn upward by the weight of the window, to which it is attached. A lug, *c*, is formed on the cam B, against which a spring, *d*, rests, that throws the cam forward against the cord. The under surface of the lug *c* is beveled, forming a cam, that is engaged by a

cam formed on the end of the lever C. The lever C is pivoted in the casing A at *e*, and is provided with a curved end, *f*, behind which the cord passes. The fastener is secured to the meeting-rail of the lower sash, and the cord *g*, which is fastened to the upper rail of the upper sash and runs over a pulley, *h*, passes downward through the casing at the end of the cam B.

When the cord *g* is drawn downward through the casing the serrated cam binds it firmly at any desired point. When it is desired to release the cord it is drawn outward, so as to move the lever C, and by this means throw the cam B upward out of engagement with the cord.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

The casing A, serrated cam B, having the beveled lug *c*, the spring *d*, and the lever C, in combination, substantially as shown and described.

ADAM KOLB.  
CHARLES OSBERGHAUS.

Witnesses:

LOUIS TRAUB,  
JOSEPHINE TRAUB.