

G. N. JOSS.
Sash-Balances.

No. 141,356.

Patented July 29, 1873.

Fig. 1.

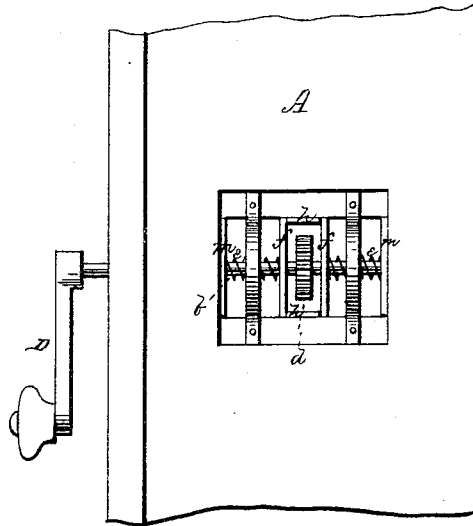
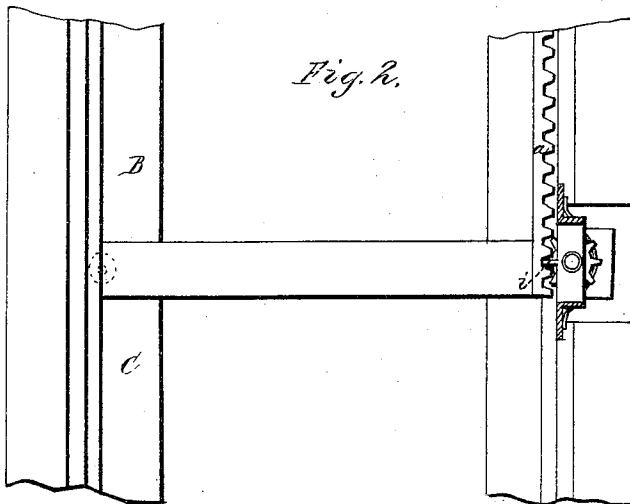


Fig. 2.



Witnesses
John A. Elias
E. J. Falconer

Inventor
George W. Joss
Per.
J. H. Alexander & Co
Attys

UNITED STATES PATENT OFFICE.

GEORGE N. JOSS, OF NEW PHILADELPHIA, OHIO.

IMPROVEMENT IN SASH-BALANCES.

Specification forming part of Letters Patent No. **141,356**, dated July 29, 1873; application filed June 18, 1873.

To all whom it may concern:

Be it known that I, GEORGE N. JOSS, of New Philadelphia, in the county of Tuscarawas and State of Ohio, have invented certain new and useful Improvements in Window Lock and Hoister; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the employment of a sliding shaft, upon which is a pinion, to engage either one or the other of the racks on the sash, in combination with spiral springs and slides on each side of the pinion, substantially as hereinafter set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side elevation, and Fig. 2 is a front view, partly in section.

A represents the window-frame, B the upper, and C the lower, sash, all of which parts are constructed and arranged in any of the known and usual ways. The sashes B C are each, on one side, provided with a rack-bar, *a*. About midway on one side of the frame A is inserted a metal box or frame, and through this passes a horizontal shaft, *b*, which extends through the window-frame, and has a crank, D, on its inner end. Upon this shaft is attached a pinion, *d*, and on each side of this pinion is a slide, *f*, which two slides are pressed toward each other by means of springs *e e*, so as to hold the pinion *d* in the space between the rack-bars of the two sashes. *h h*

are stops formed in the metal box or frame for the inward movement of the slides *f f*, and *m m* are other stops for their outward movement.

It will be noticed that either of these slides may be moved independent of the other.

Each slide *f* is provided with a tooth, *i*, to engage with the rack-bar *a* on the sash. When this lock is at rest—that is, the slides *f f* pressed by their springs against the stops *h h*—both sashes are locked by the teeth *i i* on said slides.

By pressing inward upon the shaft *b* the pinion *d* presses the rear slide *f* against its stop *m*, when the tooth on said slide will be out of the rack-bar on the upper sash, so that by turning the crank D said sash may be raised or lowered at will. When the sash is at the desired height the rear spring *e* will move the slide, pinion, and shaft to its former position, locking the sash. In like manner the lower sash is unlocked, and raised or lowered by pulling on the shaft *b*.

In the corner of the sash, opposite the rack, is a small roller, to make the sash run easy, and prevent it from binding and getting fast.

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

The combination of the shaft *b*, pinion *d*, toothed slides *f f*, springs *e e*, and stops *h h* and *m m*, all substantially as and for the purpose herein set forth.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

GEORGE N. JOSS.

Witnesses:

JNO. D. LAUGHEAD,
CHARLES W. EBERHART.