

UNITED STATES PATENT OFFICE.

ELLIOT EBERLY, OF DAYTON, OHIO.

IMPROVEMENT IN SASH-BALANCES.

Specification forming part of Letters Patent No. **204,660**, dated June 11, 1878; application filed January 3, 1878.

To all whom it may concern:

Be it known that I, ELLIOT EBERLY, of the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Combined Sash-Balances and Fastenings for the Meeting-Rails of Sashes; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of sash-balances which employ a single cord fastened to the top rail of the upper sash, and passing over a pulley suspended from the window-frame down through a clamping device secured upon the top rail of the lower sash, and by means of which cord and clamping device either or both sashes may be raised or lowered and be held counterbalanced in whatsoever position they may be placed.

The novelty of my device consists, essentially, in the construction of a casing provided on its top with a spring clamping-dog and pulley, and having within it a rack and bolt, meshing with each other and controlled by a coiled or other spring; also, in the combination, with a horizontally-swinging bolt, of a recessed piece provided with a gravitating-arm, covering the openings in the recesses, whereby the bolt, after entering either recess, is held from withdrawal, all as will be herewith set forth and specifically claimed.

In the accompanying drawings, Figure 1 is a side elevation of my device applied to the meeting-rails. Fig. 2 is a plan view of the same. Fig. 3 is an inverted view of the casing, with the bottom plate removed.

Corresponding letters of reference indicate like parts in all the figures.

A is a flat rectangular metallic casing or shell, from the sides of which integral slotted ears *a* project, and by means of which it is fastened upon the meeting-rail of the lower sash, at its middle, by screws *b*, as represented in Fig. 2. Projecting from the top of the casing and integral with it are three equidistant bearing-pieces or ears, *c*, between which is pivoted, at *d*, the bifurcated clamping-dog B, of the shape represented, Figs. 1 and 2. This dog is held back by a coiled spring, *e*, located as shown, the upper end of which presses

against the dog, while the lower end rests upon the casing.

C is a grooved pulley, journaled between the bearings *c*, as indicated in Figs. 1 and 2. The cord D, connecting the two sashes in the usual way, passes under this pulley in contact with it, and under the biting-edge of the dog B, by which it is held. Upon pressing forward the dog the cord is released, and the sashes may be adjusted at pleasure.

In the top of the casing A is a slot, *f*, located near one corner and parallel to the meeting-edges of the rails, as seen in Fig. 2. Just under this slot, in the casing, Fig. 3, is a rack-piece, *g*, having a vertical stud or button, *h*, extending from it through the slot, so as to project above the casing and form a means for sliding the rack. *i* is a bolt, pivoted in the casing at *k*, and having its end formed into a segment-gear, so as to mesh with the rack *g*, as indicated. This latter is held in position between a division-wall, *j*, and the bolt *i*. By means of a coiled spring, *l*, confined in the casing, as shown, the rack and bolt are ordinarily held in the position represented in Fig. 3.

Over the bottom of the casing, and resting upon the division-wall and lugs *m*, a flat metal plate (not shown) is fitted, and held by a screw entering the orifice indicated at *n*.

Upon the rail of the upper sash is secured, by screws, the metal piece F, of the shape indicated. In the front face of this piece are two horizontal slots or recesses, *o p*, open at one end, as seen in Fig. 1. Over the open ends of these recesses is hung a gravitating dog or arm, *r*, pivoted upon the upper side of the piece F at *s*, Fig. 1.

The operation of the device is as follows: To lock the sashes together, it is only necessary to push sidewise the button *h*, which throws out the bolt *i* in the position indicated by the dotted lines, Fig. 3. In assuming this position the bolt comes in contact with the gravitating-arm *r*, and, pushing it back, enters the recess *o* in the piece F. As soon as the bolt has passed the arm *r*, the latter, owing to gravity, returns to its former position and closes the entrance to the recesses, thus holding the bolt securely locked, as represented in Fig. 1.

To unlock the sashes, it is only necessary to

press back the arm *r*, when the spring *l* will shoot back the rack and withdraw the bolt.

The office of the recess *p* is to enable the sashes to be locked when partly opened for purposes of ventilation.

Having thus fully described my invention, I claim—

1. The casing A, provided on its top with the spring clamping-dog B and pulley C, and having contained within it the rack *g* and bolt *i*, meshing together and controlled by the coiled spring *l*, the parts constructed and ar-

ranged in the manner and for the purpose specified.

2. In combination with a horizontally-swinging bolt, the horizontally-recessed piece F, provided with a gravitating-arm, covering the openings in the recesses, whereby the bolt, after entering either recess, is held from withdrawal, substantially as set forth.

ELLIOT EBERLY.

Witnesses:

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