

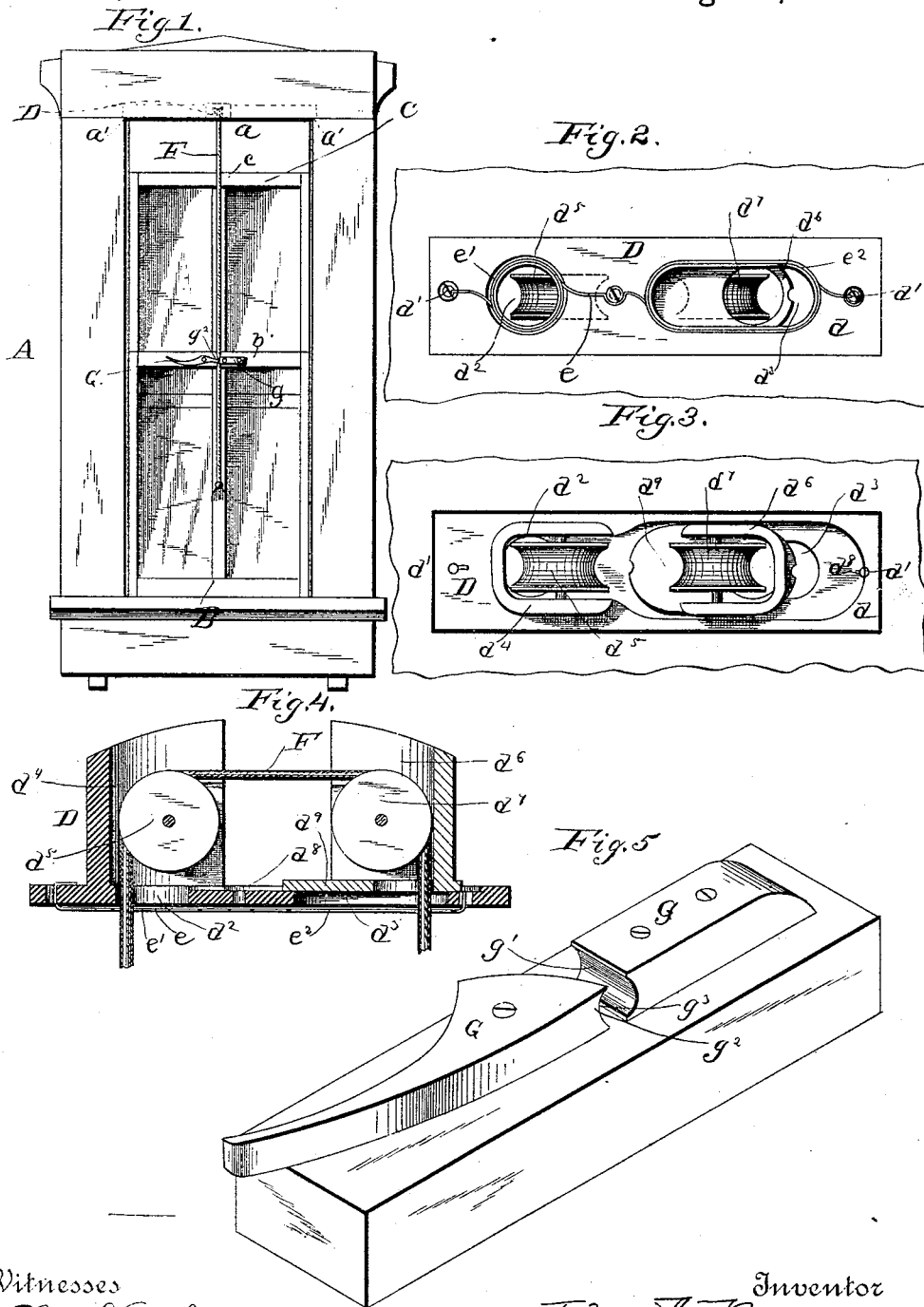
(No Model.)

J. A. ROGERS.

SASH BALANCES.

No. 348,500.

Patented Aug. 31, 1886.



Witnesses  
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# UNITED STATES PATENT OFFICE.

JOHN ALLEN ROGERS, OF HARTSELL'S, ALABAMA, ASSIGNOR OF ONE-HALF  
TO A. W. SHARPLEY AND A. C. HENRY, BOTH OF SAME PLACE.

## SASH-BALANCE.

SPECIFICATION forming part of Letters Patent No. 348,500, dated August 31, 1886.

Application filed July 22, 1886. Serial No. 208,765. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN ALLEN ROGERS, a citizen of the United States, residing at Hartsell's, in the county of Morgan and State of Alabama, have invented a new and useful Improvement in Sash-Balances, of which the following is a specification.

My invention relates to sash-balances; and the objects of my invention are, first, to insure the ready adjustment of the sashes; and, secondly, to prevent any violent closing of the sashes against the head of the window-frame.

To the above purposes my invention consists in certain peculiar and novel features of construction and arrangement, as hereinafter described and claimed.

In order that my invention may be fully understood we will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is an inner side elevation of a window-frame with my improvements applied. Fig. 2 is an under side elevation of the pulley-frame. Fig. 3 is an upper side view of the same. Fig. 4 is a sectional view of the same on the lines 4 4 of Figs. 2 and 3. Fig. 5 is a detached view of the upper sash-rail with the grip attached thereto.

In the said drawings, A designates the window-frame; B, the lower sash, and C the upper sash.

In the head or top *a* of the window-frame A is set a pulley-frame, D, said frame entering from below a mortise, *a'*, in the top *a* and midway of the length of said top or head. The base *d* of the pulley-frame D is of oblong rectangular form, and extends crosswise of the top or head *a*, said frame being secured to the top or head *a*, said frame being secured through the base *d* are formed two holes, *d'* and *d''*, the former being round and the latter elliptical, as shown. Upon the upper side of the base *d* is formed or rigidly secured a U-shaped extension, *d'*, within which is journaled a pulley, *d''*.

*d'* designates a U-shaped extension similar to the extension *d'*, and carrying also a pulley, *d''*. The extension *d'* differs from the extension *d'* in being adjustable in a recess, *d''*, on the upper side of base *d*, so as to be movable toward and away from the extension *d'*,

a base or flange, *d''*, being formed on the lower end of extension *d'*, to fit into said recess *d''*. The object in making extension *d'* adjustable is to compensate for varying thicknesses of window-sashes. To the under side of base *d* is attached a spring, *e*, having a round coil, *e'*, surrounding opening *d'*, and an elliptical coil, *e''*, surrounding opening *d''*, the ends of said spring being held by the screws *d'*, which secures the base *d* to the head *a* of the frame.

F designates a cord, one end of which is secured to the middle of the top rail, *c*, of the upper sash, C. From this point of attachment the cord runs upward through the hole *d'* and loop *e'*, thence over the pulleys and downward through the hole *d''* and loop *e''* to the lower sash, B. Upon the inner side of the top rail, *b*, of the lower sash, B, and midway of the length of said sash, is secured a plate, *g*, one end of which is formed with a groove, *g'*, while opposite to said plate *g* is pivoted a cam-lever, G, the head *g''* of which is formed with a groove, *g''*, contiguous to the groove *g'* of plate *g*.

From the above construction it will be seen that the sashes may be readily adjusted, and that they are securely held as adjusted by the lever G; furthermore, that the pulley-frame may be applied to frames of varying thickness, and that when either the upper or lower sash is thrown against the head of frame A all jarring will be prevented by the spring *e*. By virtue of the adjustable pulley the upper sash can never rub against the cord and wear it when said sash is thrown fully upward, and, moreover, the adjustable character of the pulley causes the sash-cord to always extend straight downward whatever may be the thickness of the window-sashes.

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

1. In a sash-balance, a pulley-frame set in the head of the window-frame, and having a fixed and a movable extension for carrying the pulleys, substantially as described.

2. The combination, with a pulley-frame set in the head of the window-frame, of a cushioning-spring secured to the under side of said pulley-frame to receive the raised sashes, substantially as set forth.

3. The combination, with the base  $d$ , having openings  $d^2$   $d^3$  and rigid U-shaped extension  $d^4$ , carrying pulley  $d^5$ , of the movable extension  $d^6$ , carrying pulley  $d^7$ , and working  
5 in recess  $d^8$  in said base, substantially as described.

In testimony that I claim the foregoing as

my own I have hereto affixed my signature in presence of two witnesses.

JOHN ALLEN ROGERS.

Witnesses:

ROMAN T. PUCKETT,  
A. A. ODEN.