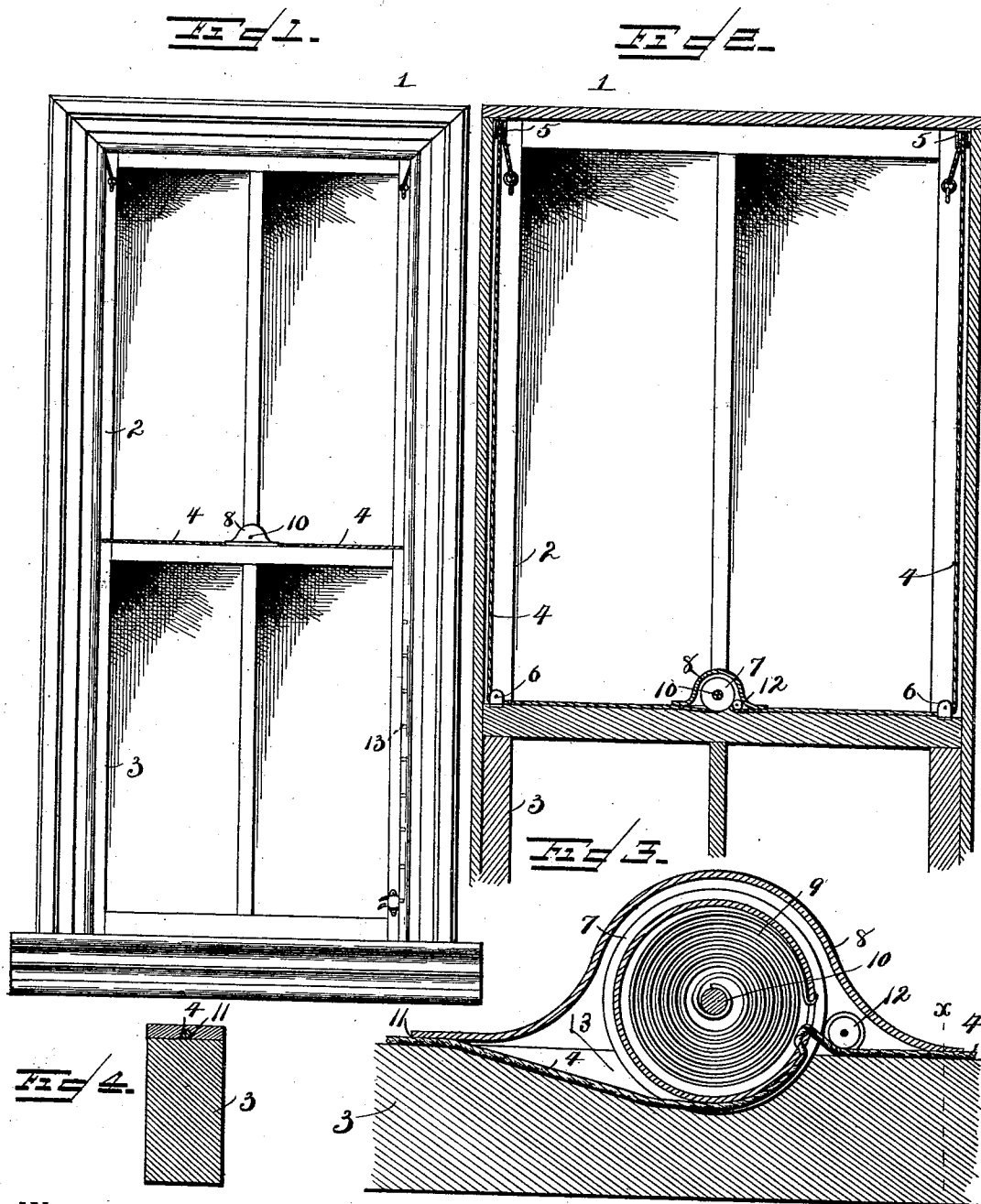


(No Model.)

J. E. PARRISH.
SASH BALANCE.

No. 513,823.

Patented Jan. 30, 1894.



Witnesses

W. C. Schneider.
N. W. Riley

Inventor

John E. Parrish.

By his Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

JOHN E. PARRISH, OF RADFORD, VIRGINIA.

SASH-BALANCE.

SPECIFICATION forming part of Letters Patent No. 513,823, dated January 30, 1894.

Application filed February 17, 1893. Serial No. 462,742. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. PARRISH, a citizen of the United States, residing at Radford, in the county of Montgomery and State of Virginia, have invented a new and useful Sash-Balance, of which the following is a specification.

The invention relates to improvements in sash balances.

The object of the present invention is to simplify and improve the construction of sash balances, and to enable them to be readily arranged on the exterior to afford easy access to them, and to permit their application to any window.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claim hereto appended.

In the drawings—Figure 1 is an elevation of a window having a sash balance constructed in accordance with this invention. Fig. 2 is a sectional view of the upper portion of the lower sash. Fig. 3 is a transverse sectional view of the main pulley. Fig. 4 is a detail sectional view on line *x-x* of Fig. 3.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a window frame having slidably mounted in its upper and lower sashes 2 and 3, adapted to be raised and lowered in the usual manner. The sashes are balanced and maintained at any desired adjustment by cords 4 of braided wire, or other suitable material, which each have one end attached to the top of the upper sash at the side thereof, and passes over a pulley 5 at the top of the window frame and under a guide pulley 6 at the side and top of the lower sash, and thence to a main pulley 7. The main pulley 7 is spring actuated and is mounted in a casing 8, and has a circumferential groove formed by flanges to prevent the cord from slipping off of it. Within the main pulley 7 which is hollow is located a barrel spring 9 having one end connected to the pulley adjacent to the periphery and its other end connected to the shaft 10 on which the pul-

ley is mounted, and which is secured to the sides of the casing 8. The casing is provided with securing flanges and the latter are provided with longitudinal bores 11 to form ways for the cords, to cause the latter to lie close to the top of the upper sash. The cords are wound around the spring actuated pulley in the same direction, and a guide pulley 12 is journaled at one side of the casing to direct the cord into the bore at that side. The pulleys 5 are journaled in suitable hangers; and the pulleys 6, which are mounted on the top of the lower sash, have their peripheries arranged close to the sash in order that the cord will also lie close to the sash. The lower sash is provided with a fastener for locking the sashes in their adjustment; and the top of the window frame has a concavity or recess 13 to receive the casing of the spring actuated pulley to permit the lower sash to be elevated to the fullest extent.

It will be seen that the sash balancer is simple and inexpensive in construction, that it is arranged on the exterior of the window and sashes, and is adapted to maintain the latter at any desired adjustment, and that it may be readily applied to any window in use without changing the construction of the same.

Changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle, or sacrificing any of the advantages of this invention.

A sash fastener may be provided for each sash if desired, and these are adapted to lock the sashes in their adjustment.

What I claim is—

In a sash balancer, the combination with a window having upper and lower sashes, the pulleys 5 and 6 arranged respectively at the top of the window frame and at the top of the lower sash, a casing secured to the top of the lower sash at the center of the same and provided with securing flanges having longitudinal bores, a spring actuated pulley mounted in the casing, the cords attached to the top of the upper sash and extending over the pulleys 5 and 6 and wound around the

spring actuated pulley in the same direction
and arranged in the bores of the securing
flanges, and a guide pulley 12 arranged at
one side of the casing and directing one of
5 the cords to the adjacent bore, substantially
as described. .

In testimony that I claim the foregoing as

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

J. E. PARRISH.

Witnesses:

JOHN H. SIGGERS,
E. G. SIGGERS.