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Patented Mar. 6, 1900.

T. M. SPINKS.

SASH BALANCE.

(Application filed Nov. 1, 1899.)

(No Model.)

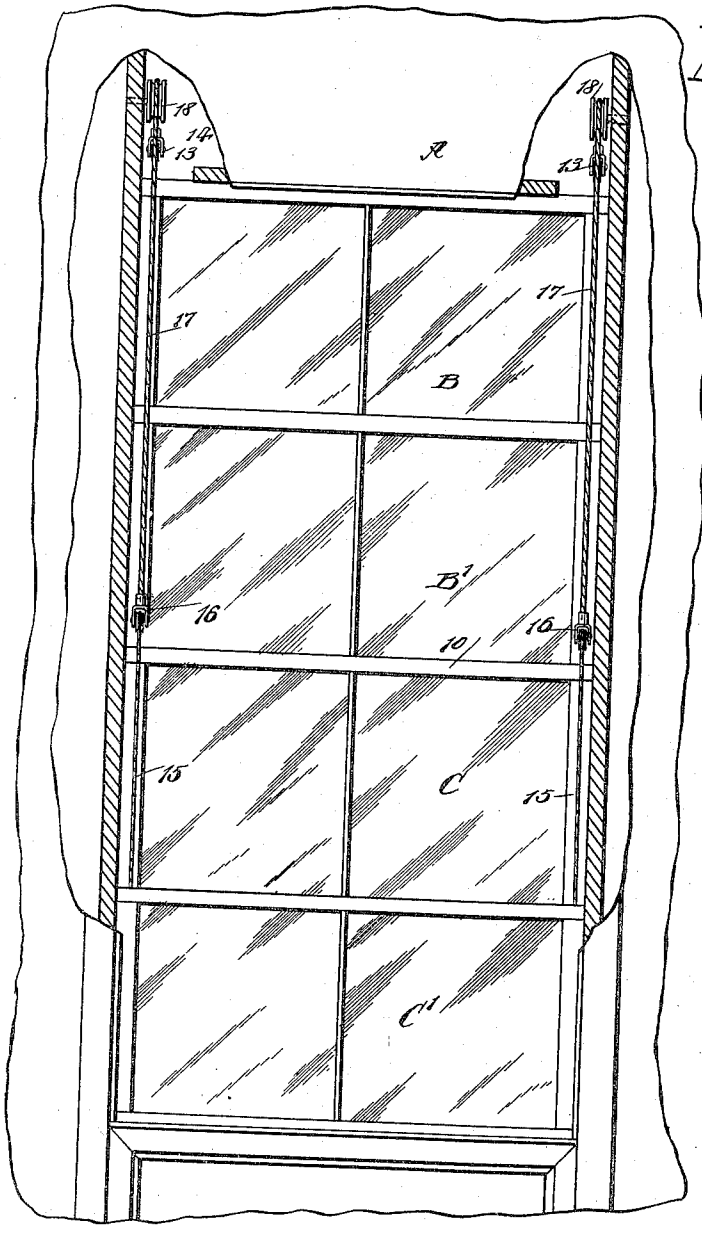
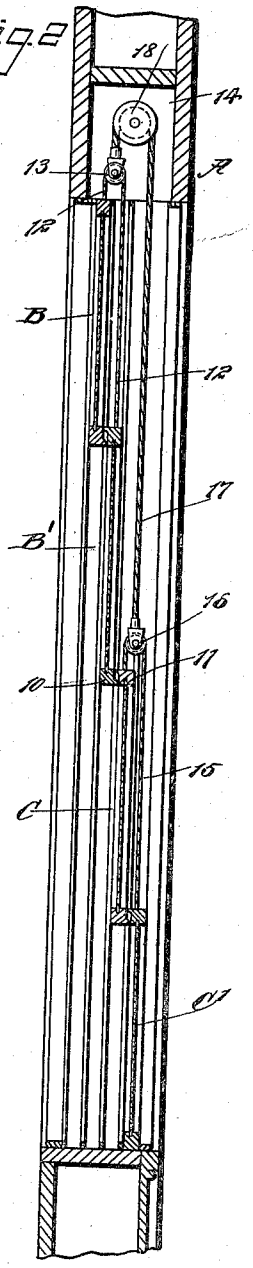


Fig. 1

Fig. 2



WITNESSES:

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THOMAS MANLY SPINKS, OF SHUBUTA, MISSISSIPPI.

SASH-BALANCE.

SPECIFICATION forming part of Letters Patent No. 644,949, dated March 6, 1900.

Application filed November 1, 1899. Serial No. 735,503. (No model.)

To all whom it may concern:

Be it known that I, THOMAS MANLY SPINKS, a citizen of the United States, residing at Shubuta, in the county of Clarke and State of Mississippi, have invented a new and Improved Sash-Balance, of which the following is a full, clear, and exact description.

One object of the invention is to so construct window-sashes that sash-weights need not be employed and to provide a construction whereby four sashes are used in a frame, the sashes being balanced in pairs, and in which one pair of sashes is arranged to balance another pair.

Another object of the invention is to so connect the sashes that each pair of sashes may be operated independently or both pairs simultaneously.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both figures.

Figure 1 is a front elevation of window-sashes and a portion of a window-frame in which the sashes are mounted, parts of the frame being broken away; and Fig. 2 is a longitudinal section through the window-frame and through the sashes at a point near one of their ends.

The window-frame A is of the ordinary type, except that the said frame is provided with a double set of sash-grooves, since four sashes are used in closing the opening of the window-frame. These sashes are arranged in pairs—namely, an upper pair of sashes B and B′ and a lower pair of sashes C and C′. Each pair of sashes is of the same construction as the ordinary sashes of a window-frame—that is to say, the upper member of the lower sash and the lower member of the upper sash are meeting-rails, but the lower member of the lower sash of the upper pair constitutes a meeting-rail 10, as does also the upper rail or member 11 of the upper sash of the lower pair, as shown in Fig. 2.

A cord 12 is secured to the upper sash of the upper pair at each end, and these cords extend downward and are attached to the upper rail of the lower sash of the upper pair, as shown in Fig. 2, and the cord 12 is passed over a pulley 13, located in a chamber 14 in the upper portion of the window-frame, above the upper sash when the sashes are closed. Cords 15 are located at each side of the window-frame at a point below the cords 12, and the lower cords 15 connect the upper rail of the upper sash of the lower pair with the upper rail of the lower sash of the same pair, as is also shown in Fig. 2, and said cords are passed over pulleys 16. The hangers for the pulleys 13 and 16 are secured in any suitable or approved manner to the ends of ropes 17, preferably heavier than the cords or ropes 12 and 15, and the connecting ropes or cords 17 are passed over pulleys 18, mounted in the chamber 14 of the window-sash, as shown in the drawings.

Each sash of a pair balances the other, and one pair of sashes serves to balance the other pair, so that by moving the cords 12 the sashes of the upper pair may be adjusted independent of the sashes of the lower pair, and the sashes of the lower pair may be adjusted independent of those of the upper pair by manipulating the lower cords 15, while both pairs of sashes may be simultaneously adjusted by manipulating the connecting cords or ropes 17. Thus it will be observed that the two sashes of the upper pair may be brought one immediately back of the other and made to occupy a position between the top of the window-frame and the upper portion of the lower pair of sashes, and the lower pair of sashes may be correspondingly arranged, or all of the sashes may be placed one at the rear of the other at any point in the length of the window-frame, thus enabling more complete ventilation to be obtained than when sashes are constructed in the ordinary way. Furthermore, the sashes when used as shown in the drawings may be made exceedingly light. When the window is open to its fullest extent, the sash only occupies one-fourth of the opening.

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

1. A window-frame, sashes mounted in the window-frame, the sashes being arranged in pairs, each sash of a pair balancing the other and the sashes of one pair balancing the sashes

of the mating pair, and means, substantially as described, for independently moving the sashes of either pair, or simultaneously operating both pairs of sashes.

2. The combination, with a window-frame, of two pairs of sashes, the sashes of each pair being mounted to slide in the said frame, one sash of a pair balancing the other and one pair of sashes balancing the mating pair, cords connecting the upper rails of the sashes of each pair, rollers over which the said cords pass, rollers journaled in the frame, and connecting-cords passed over the guide-rollers and secured to the first-mentioned rollers, whereby each pair of sashes may be independently operated or both pairs of sashes simultaneously operated, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS MANLY SPINKS.

Witnesses:
E. F. MARTINIERE,
W. L. WEEMS.