No. 795,759. PATENTED JULY 25, 1905.

E. FEGERT.

SASH BALANCE.

APPLICATION FILED SEPT. 24, 1904.

Fig. 1.

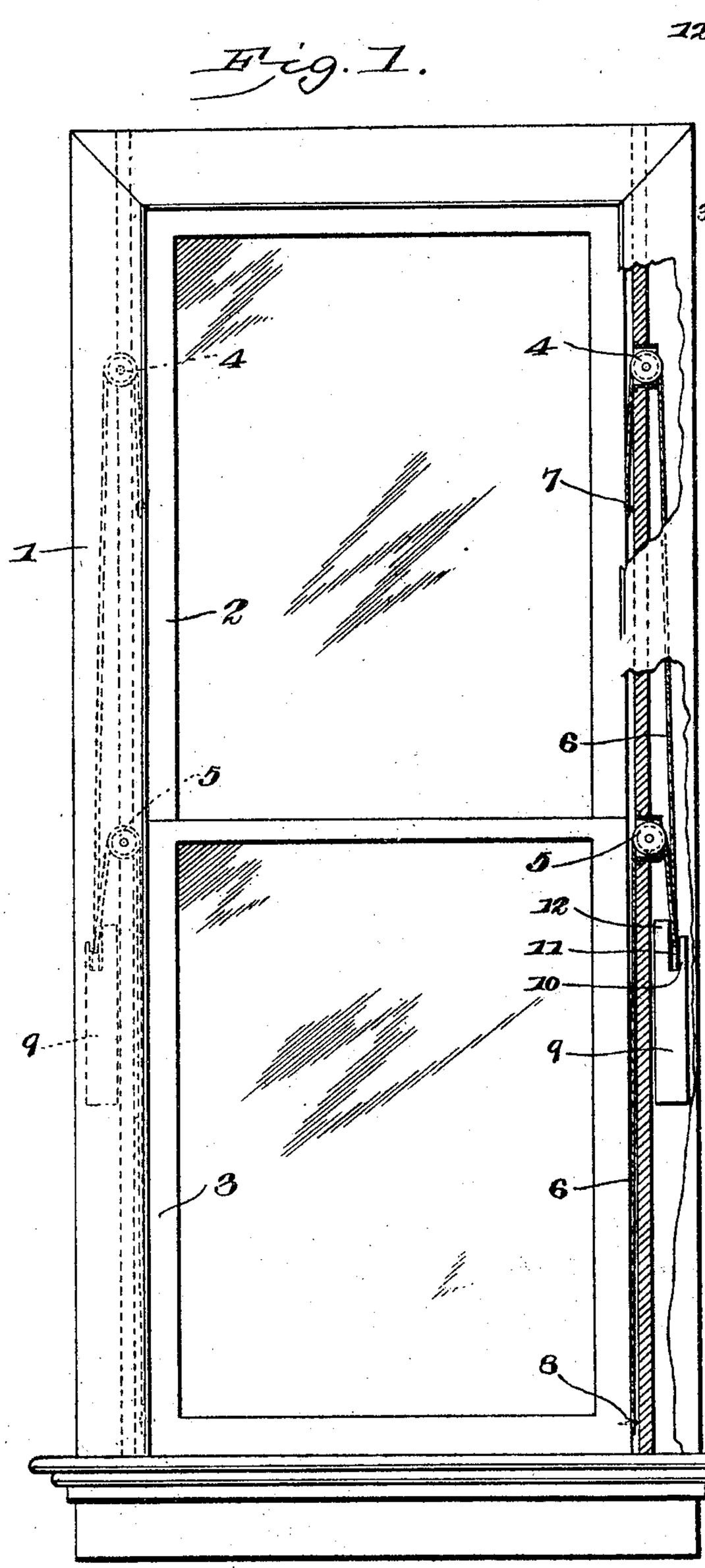


Fig. 2.

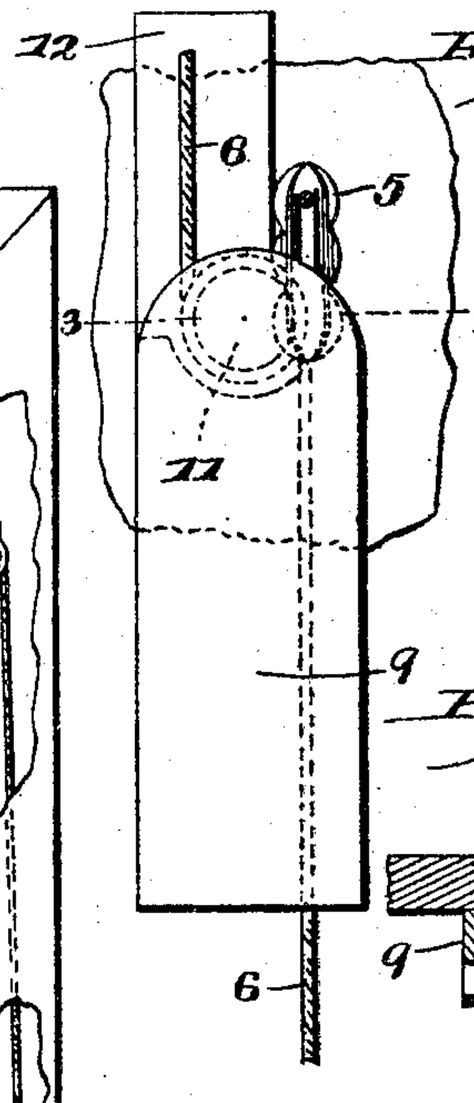


Fig. 3.

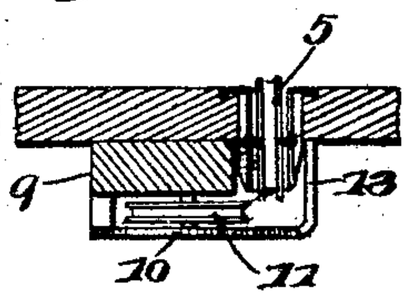


Fig. 4.

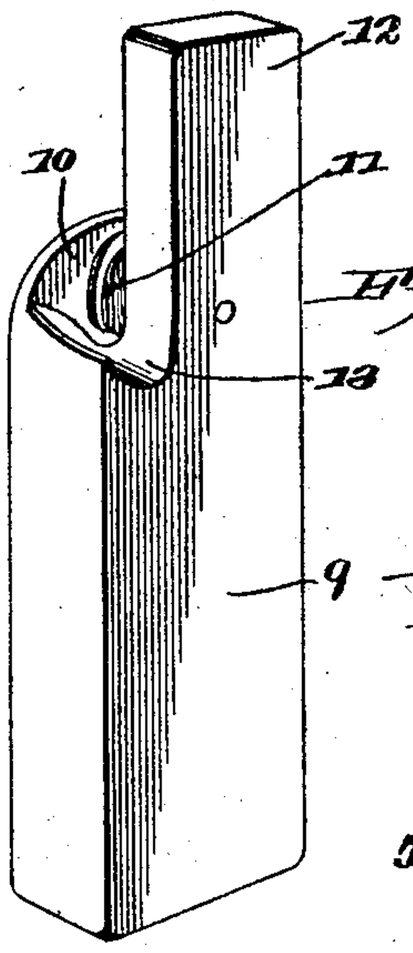
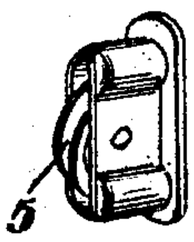


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

EDWARD FEGERT, OF CEDARFALLS, IOWA, ASSIGNOR OF ONE-HALF TO HARRY B. WILD, OF CEDARFALLS, IOWA.

SASH-BALANCE.

No. 795,759. Specification of Letters Patent. Patented July 25, 1905.

Application filed September 24, 1904. Serial No. 225,811.

To all whom it may concern:

Be it known that I, EDWARD FEGERT, a citizen of the United States, residing at Cedarfalls, in the county of Blackhawk and State of Iowa, have invented a new and useful Sash-Balance, of which the following is a specification.

This invention relates to sash-balances, and has for its object to provide certain new and useful improvements in this class of devices wherein a single weight at each side of the window serves for the two sashes and the sash-cords are concealed in both the open and closed positions of the sashes.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is an elevation of a window-frame and the sashes thereof equipped with the sash-balance of the present invention, parts of the frame being broken away to disclose the manner of mounting the sash-cord and the balance-weight. Fig. 2 is a detail side elevation showing the balance-weight in engagement with one of the pulleys to lock the upper sash against further downward movement. Fig. 3 is a detail cross-sectional view on the line 3 3 of Fig. 2. Fig. 4 is a detail perspective view of one of the sash-weights. Fig. 5 is detail perspective view of one of the pulleys.

Like characters of reference designate corresponding parts in each and every figure of the drawings.

To illustrate the application and operation of the present invention, there has been shown in the accompanying drawings an ordinary window-frame 1, having the upper and lower sashes 2 and 3 mounted therein in the usual manner.

In carrying out the invention an upper pulley 4 is mounted in the upper portion of each pulley-stile and another pulley 5 is mounted in an opening in the pulley-stile at or adjacent the top of the lower sash. A pulley-cord 6 has its upper end connected to the adjacent outer edge of the upper sash, as at 7, from which it rises and passes over the upper pulley 4 and into the weight-box of the window-frame, so as to hang down in the form of a bight, and is then run over the lower pulley 5 and thence downwardly between the lower sash and the pulley-stile and connected to the adjacent edge of the lower sash near the bottom thereof, as indicated at 8. The sash-weight 9 is mounted to travel in the weight-box of the window-frame and is provided at its upper end with a socket 10, in which is mounted a pulley 11, that is hung in the bight portion of the pulley-cord. That side of the weight which is adjacent the pulley-stile is extended above the pulley 11, as indicated at 12, with its rear side reduced and terminating in a transverse shoulder 13 adjacent the bottom of the socket 10.

With the arrangement thus described it will be noted that both sashes are balanced by one and the same weight at each side of the window-frame and that a single pulley-cord is employed for each weight, thereby materially simplifying the construction and mounting of the sash-balance. The lower sash may be elevated to its limit without affecting the upper sash, for the reason that the opposite weights will travel downwardly as the length of the bight portion of the pulley-cord is increased by the cord from the lower sash passing downwardly over the pulley 5, and therefore the lower sash may be raised and lowered independently of the upper sash. Likewise the upper sash may be lowered and raised independently of the lower sash; but the lowering of the upper sash is limited by reason of each weight coming into contact with the adjacent lower pulley 5, the shoulder 13 being provided to engage the pulley, and thereby arrest further downward movement of the upper sash. It is apparent that the extent of the downward movement of the upper sash may be varied by locating the lower pulley 5 above the top of the lower sash and increasing the length of the pulley-cord.

It will here be noted that as the end portions of the pulley-cord are connected below the tops of the respective sashes and between the latter and the pulley-stile the cord is entirely concealed.

Having fully described the invention, what is claimed is—

The combination with a window-frame hav-

ing upper and lower sashes, of upper and lower pulleys mounted in one of the pulley-stiles with the frame of the lower pulley projected into the weight-box of the window-frame, a sash-cord connected to the upper sash and passing over the upper pulley downwardly through the weight-box to a point below the lower pulley and thence upwardly and over the lower pulley and connected to the lower sash, and a counterweight working in the weight-box and provided in its upper end with a socket extending from the front to the back of the weight, and a pulley mounted in the socket and hung in the bight of the sash-cord, the top of the weight also being provided with a shoulder disposed transversely across one end of the socket for engagement with the frame of the lower pulley to limit the upward movement of the weight.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EDWARD FEGERT.

Witnesses:

JULIA S. DICKSON,

H. W. JOHNSON.