(No Model.)

# C. E. WHIPPLE.

## SASH BALANCE.

No. 452,297. Patented May 12, 1891.

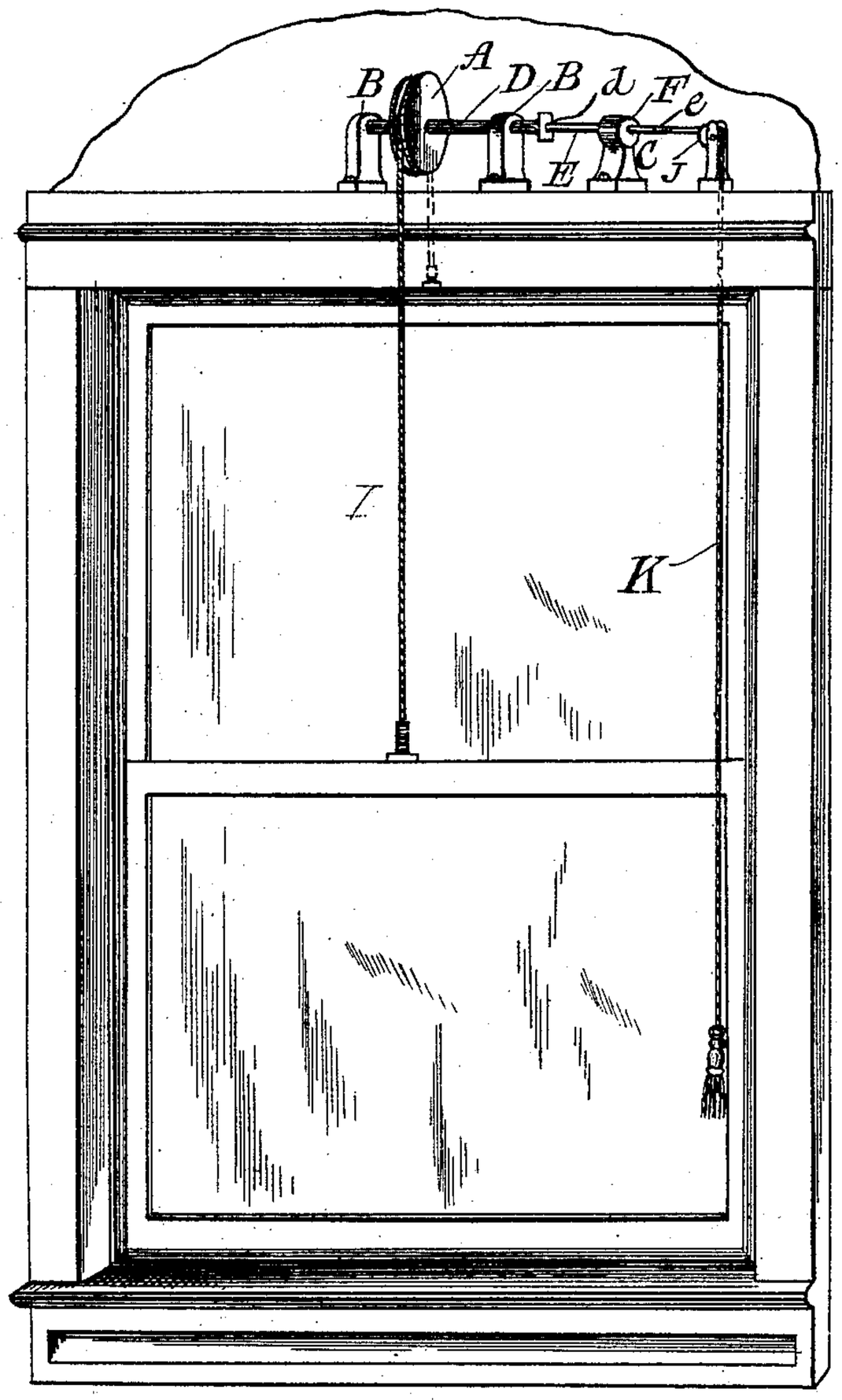


Fig. 1

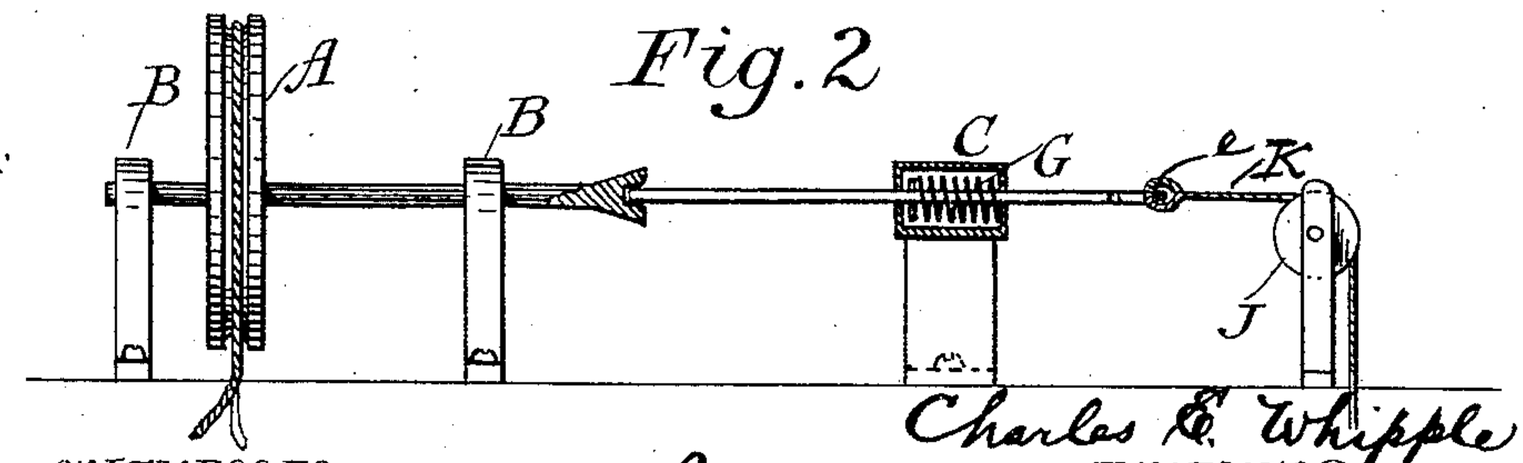


Fig. 2

WITNESSES.

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# UNITED STATES PATENT OFFICE.

CHARLES EDWARD WHIPPLE, OF SEVERY, KANSAS.

## SASH-BALANCE.

SPECIFICATION forming part of Letters Patent No. 452,297, dated May 12, 1891.

Application filed January 2, 1891. Serial No. 376,518. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES EDWARD WHIPPLE, a citizen of the United States, residing at Severy, in the county of Greenwood and State of Kansas, have invented certain new and useful Improvements in Sash-Balances; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in sash-balances; and it consists of certain novel features of construction and arrangement, as will be hereinafter fully described in the specification, illustrated in the accompanying drawings, and specifically pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective view of my invention applied to use, showing window-casing partly broken away. Fig. 2 is an enlarged detailed view of the pulley supporting the sash, and the stop mechanism.

Referring to the several parts of my invention by letter, A represents the pulley of the usual construction, mounted in bearings B, while C represents the stop mechanism. The pulley and stop mechanism are mounted on the upper side of the top of the window-casing. The pulley just referred to is preferably placed at or near the middle of the window-sash, that the weight of such sash may be properly adjusted on the pulley, so that no lateral movement or pressure will be brought to bear thereon. The said pulley is of the usual construction, while one end of its axle D is extended through and past the bearing, and is provided in such extended end with a square hole *d*, adapted to receive the square end of the stop-bolt E. Said stop-bolt is mounted horizontally in bearings F, so that it will be on a line with the axle D. Around the stop-bolt E is placed the spiral spring G, which is so placed against the stop-pin E that said bolt will be held normally against the extended end of the axle, thus causing the end of the stop-bolt to enter the hole in said extended end and lock the pulley against further rotation until the bolt is again withdrawn. The outer end of the stop-bolt terminates in a suitable eye or ring *e*, to which an operating-cord K may be attached. Said operating-cord, after being attached to the stop-bolt, is passed over the block J and extended downward through a hole in the casing to a convenient point for the operator. A cord I is secured at either end to the window-sash after being placed over the pulley, and they will thus counterbalance each other. As the spiral spring around the stop-bolt normally holds such bolt so that its inner end will press into the hole in the extended end of the axle, it will be seen that the pulley is locked until the bolt is withdrawn by a downward pull on the cord K, when the sash may be easily raised or lowered. After the sash are in the position desired the cord K is released, when the spring will force the square inner end into the square end of the extended axle, and thus lock the pulley against further rotation. The outer end of the hole in the end of the axle is slightly enlarged, so that the end of the stop-bolt will be readily received. It will be understood that when it is desired to lift the lower sash such action will lower the upper sash, and vice versa.

It will be seen in the foregoing description, taken in connection with the accompanying drawings, that I have produced a simple, valuable, and efficient counter-balance for window-sash, and believing that the advantages, operation, and construction will be readily understood from the foregoing description further reference is deemed unnecessary.

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

1. The counter-balance for window-sash herein described and shown, consisting of the pulley mounted in suitable bearings at the top of the window-casing on a median line with the sash, the stop mechanism consisting of the bolt E, adapted to engage the recessed axle of the pulley A, the bearings F, the spiral spring G, and the block J and cord K, substantially as described.

2. The combination of the pulley mounted

on the upper side of the window-casing and having one end of its axle extended and provided with a recess *d*, and the stop mechanism adapted to engage with the recessed end of the pulley-axle when the sash has been adjusted to the desired point, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES EDWARD WHIPPLE.

Witnesses:
GEO. H. DAUD,
STANLEY CRANDALL.