A. B. Hester,

Sash Balance.

No. 44,866. Patented Nov. 1, 1864.

Fig: 2.

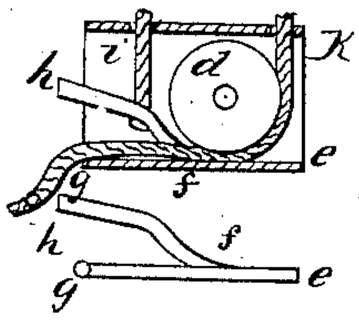
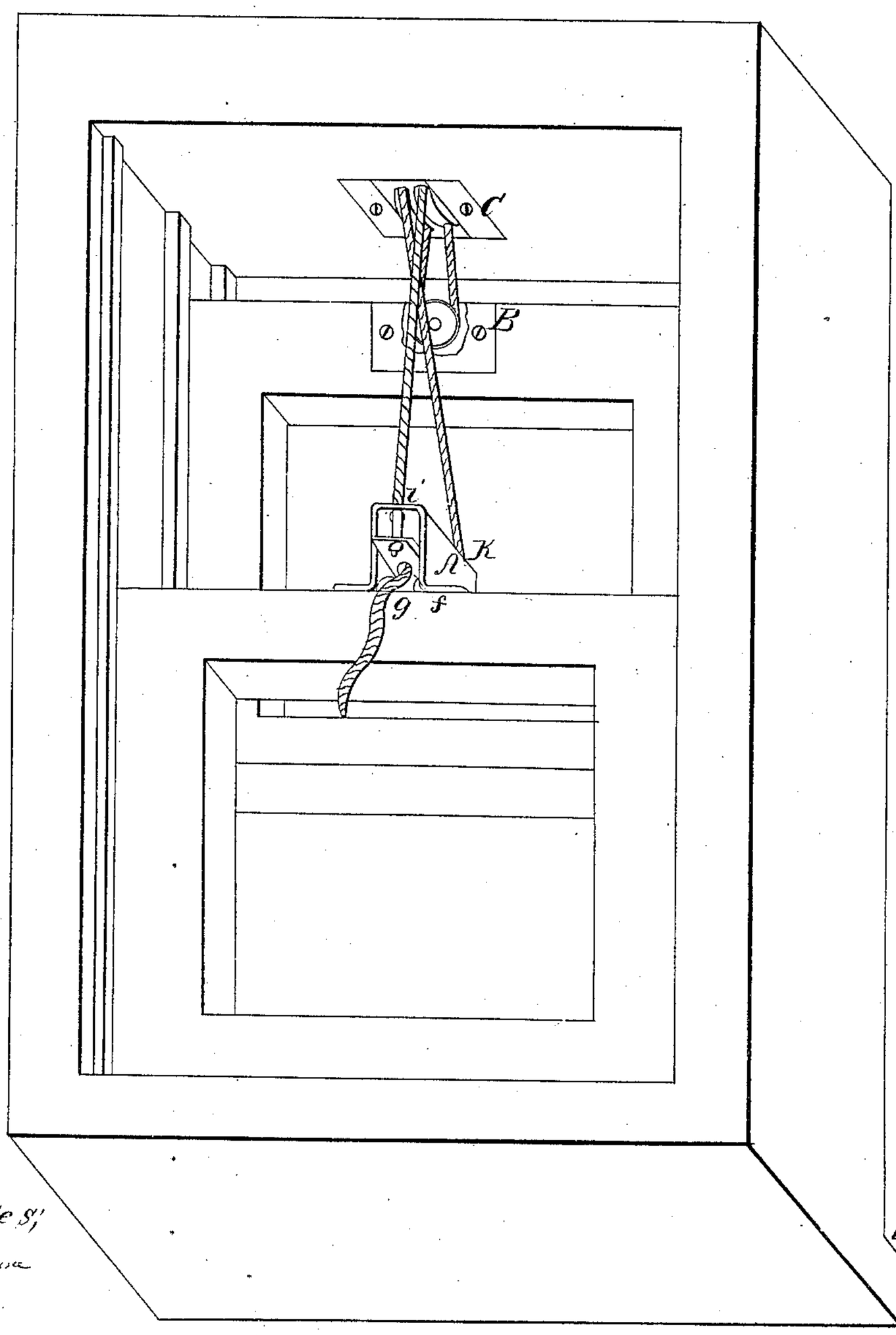


Fig: 1.



Witnesses,
H. B. McClure
F. D. Lavanay

Inventor,
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UNITED STATES PATENT OFFICE.

ANDREW B. HESTER, OF KENT, INDIANA.

IMPROVEMENT IN SASH-BALANCE.

Specification forming part of Letters Patent No. **44,866,** dated November 1, 1864.

To all whom it may concern:

Be it known that I, ANDREW B. HESTER, of Kent, in the county of Jefferson and State of Indiana, have invented a new and improved method of suspending sash in windows, so as to open and close the windows at pleasure, to be known by the title of "The Sash-Balance;" and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The method is to balance one sash with the other by means of a cord and pulleys, so that when one is raised the other descends, and vice versa; also, to shorten or lengthen the the cord at pleasure by means of an original apparatus, hereinafter described, thereby moving either sash independently of the other.

Figure 1 represents the window with the cord, pulleys, and apparatus applied. The cord is drawn around under the pulley B in the top rail of the upper sash. Each end of the cord is then drawn over one of the two pulleys at C in the head of the window. Both ends are then fastened in the apparatus A to the meeting-rail of the lower sash.

Fig. 2 represents the apparatus A with its parts exposed. Its principal parts are the roller *d*, about three-fourths of an inch each way, and the forked lever *e g h*, about half an inch longer than the thickness of the sash and in width equal to the length of the roller—about three-fourths of an inch. These are arranged in a case of wood or metal or any suitable material. The roller is made fast by its axis about a fourth or half of an inch above the sash. The lever is made fast just under and behind the roller at *e*, leaving the other end, *g h*, free to move up and down. The lever is made forked by being separated into upper and lower parts, *g h*, at the point *f*, just forward of the roller. One end of the cord passes through the case just back of the roller at *h*, then under the roller between it and the lever, then through a perforation in the upper part of the lever at *f*, and then hangs loosely over the lower part of the lever at *g*. The other end of the cord passes through the case at *i* in front of the roller, and is fastened to the upper part of the lever.

When the weight of the sash comes on the cord the lever is drawn upward by means of the end of the cord at *i*, and the other end of the cord, being clasped between the lever and roller, is held fast. By a gentle pressure on the lever at *h* the cord between the roller and lever is loosened, and may be shortened and lengthened at pleasure.

By drawing the loose end of the cord downward over the lower part of the lever at *g* the clasp is at once opened, the cord drawn out, and the sash raised. For heavy sash I put a small pulley or roller in the end of the lower part of the lever at *g* to prevent friction.

What I claim as my invention, and desire to secure by Letters Patent, is—

The cap or shield A, inclosing a roller, *d*, and a forked lever, *e g h*, in combination with the pulleys B C and cord thereunto attached, in the manner and for the purpose described in the specifications.

ANDREW B. HESTER.

Witnesses:

HIRAM B. MCCUNE,

JOSEPH W. GASAWAY.