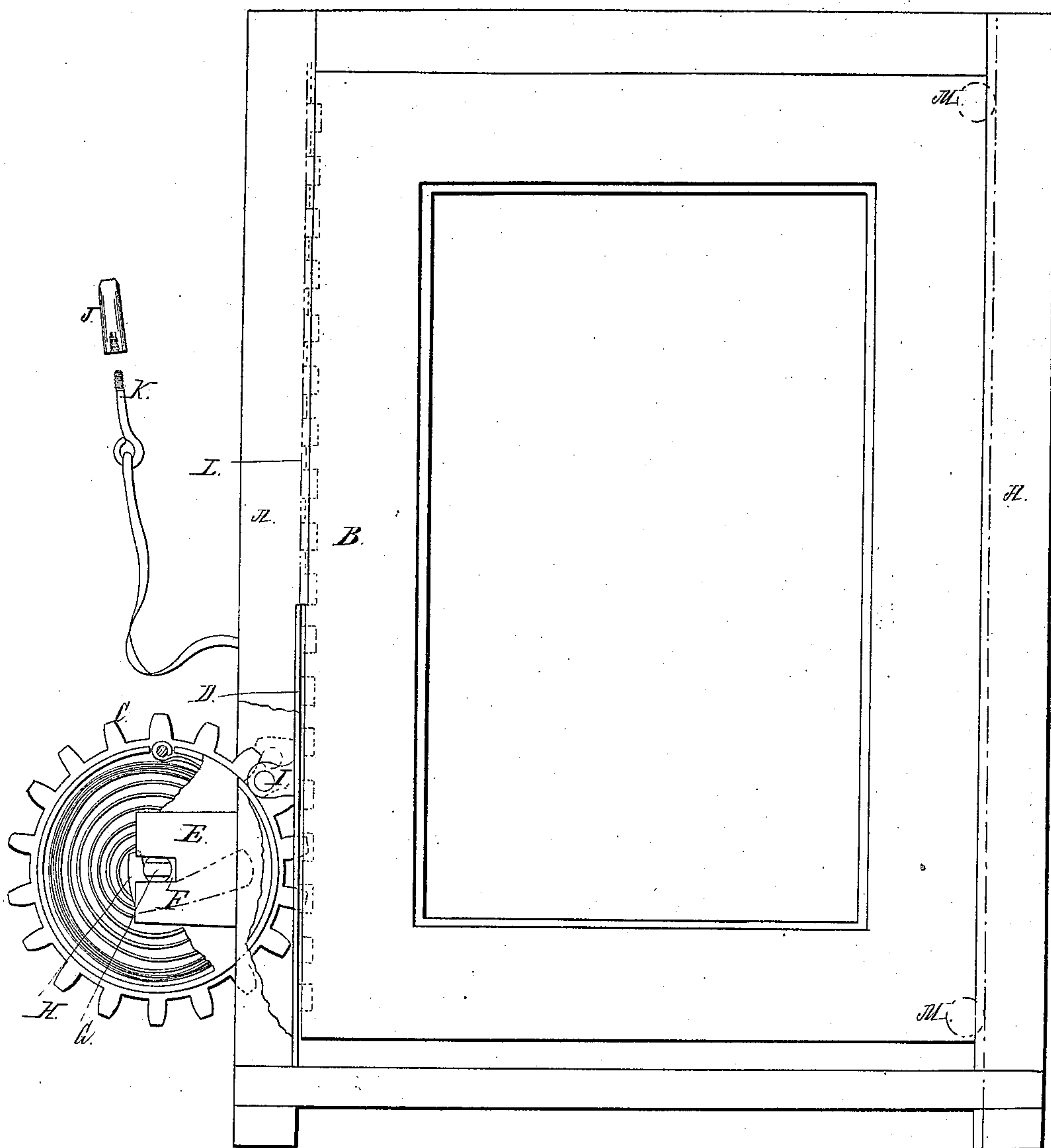


S. Cooper,
Sash Balance.

N^o 24,077.

Patented May 17, 1859.



Witnesses:

S. A. Wilder
James P. Bays

Inventor:

Samuel Cooper

UNITED STATES PATENT OFFICE

SUMNER COOPER, OF WINDSOR, CONNECTICUT, ASSIGNOR TO HIMSELF, AND THOS. DENHAM AND JOS. W. BRIGGS, OF CLEVELAND, OHIO.

WINDOW-SASH SUPPORTER.

Specification of Letters Patent No. 24,077, dated May 17, 1859.

To all whom it may concern:

Be it known that I, SUMNER COOPER, of Windsor, county of Hartford, and State of Connecticut, have invented certain new and
5 useful Improvements in Spring-Pulleys for Window-Sash; and I do hereby declare that the same is described and represented in the following specification and drawings, and to enable others skilled in the art to
10 make and use my improvements I will proceed to describe the construction and operation, referring to the drawings, in which the same letters indicate like parts in each of the figures.

15 The nature of my improvement in spring pulley for window sash consists in the employment of a spring pinion secured in the jamb of the window frame, having a device for locking the same at any given point,
20 with a rack secured to the edge of the sash and having friction rollers in the upper and lower corners of the opposite edge of the sash, so that when it is desired, one spring pinion may be used alone to raise and fall
25 the window sash, or lock the sash down, or at any other given point.

In the accompanying drawings A, is the window frame.

B, is the sash.

30 C, is the spring pinion pulley.

D, is the force plate of the sheave.

E, is the sides of the sheave having slots F, for holding the ends of the spindle G secure from turning with the pinion pulley C.

35 H, is a latch or hook secured to the side E, so as to turn down over and hold the spindle G, firmly in place, and allow the pinion pulley to be easily removed at will.

40 I, is a tube or box secured to the face plate D, cut in such a manner as to allow the teeth

of the pinion C, to pass through said openings.

J, is a lock pin fitted to the tube or box I, which when inserted therein prevents the action or movement of the pinion C. 45

K, is a key having a screw cut on the end thereof corresponding and fitting into a hole in the end of the pin J, by the use of which the pin J, may be inserted into its place in the box I, and the key removed, leaving the
50 pinion locked.

M, are friction rollers, secured in the edge of the sash and near the upper and lower end thereof, so that when but one pulley is used to a sash, the pulley M, will keep the
55 opposite edge of the sash free, to be moved by the action of the spring pulley. It will be clearly seen that by the use of this pulley the sash may be freely raised and lowered, and secured at any desirable point, and at
60 the same time may be locked securely against burglars, thieves &c. These pulleys are cheap, easy of construction, and can be readily applied to windows, already made without any conveniences for raising and falling
65 them, and at the same time possessing the locking feature, thus showing the advantage derived by it over others now in use.

What I claim therefore and desire to secure by Letters Patent is— 70

The combination and employment of the spring pinion pulley C, with the rack or perforated plate L, tube or box I, pin J, key K, latch H substantially in the manner as and for the purpose described.

SUMNER COOPER. [L. s.]

Witnesses:

S. I. WILDER,

JEREMY W. BLISS.