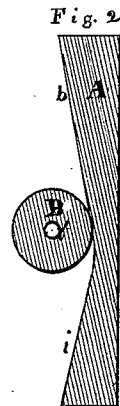
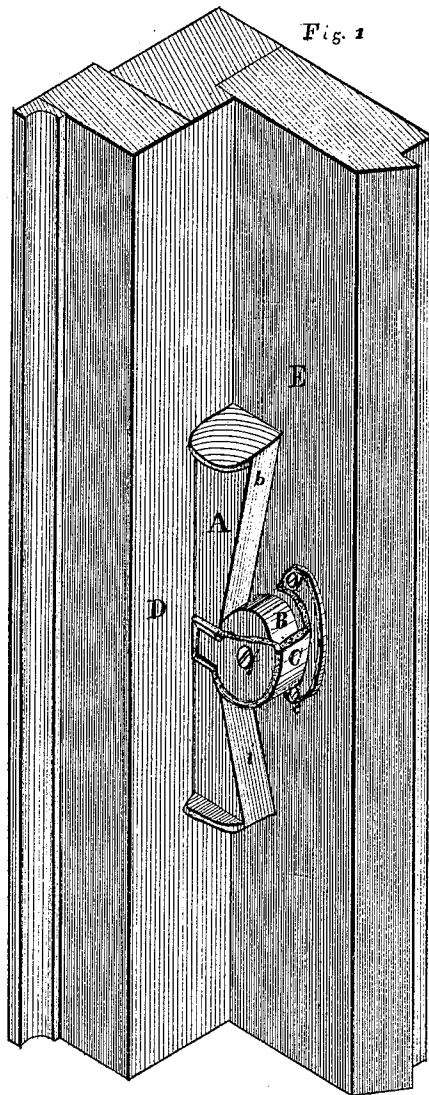


A. Thomson,

Sash Holder.

No. 112,985.

Patented Mar. 21. 1871.



R. E. Moore
J. B. Mathews

Alexander Thomson

United States Patent Office.

ALEXANDER THOMSON, OF CHAMPAIGN, ILLINOIS.

Letters Patent No. 112,885, dated March 21, 1871.

IMPROVEMENT IN SASH-HOLDERS.

The Schedule referred to in these Letters Patent and making part of the same.

I, ALEXANDER THOMSON, of Champaign City, in the county of Champaign and State of Illinois, have invented a certain Friction Window-Lock, of which the following is a specification.

Object of the Invention.

The object of the invention is to make a strong and efficient automatic lock, and to hold the window down or in any other position by means of friction, in such a manner as not to deface the jamb of the window.

Description of the Accompanying Drawing.

Figure 1 is a perspective view.

Figure 2 is a vertical section.

General Description.

A is a key having two inclined faces, *b* and *i*, the inclination being such that the tangents of the angles, which the faces make with jamb D, shall be less than the coefficient of friction; or, in other words, that the roller B will roll onto *b* or *i*, as the case may be, instead of slipping on jamb D.

The side of key A, which bears against jamb D, is not a perfect plane, but is bent at *c*, as shown in fig. 2, this being done to prevent roller B from breaking it at *c*.

The surface of key A, which bears against jamb D, is of sufficient area from *c* to either end as to prevent it from defacing jamb D.

C is a case which is fastened to sash E by means of three screws, *e*, *l*, and *f*, inside of which is placed the roller B, through which the screw *f* passes, forming a bearing for roller B.

Roller B should be placed sufficiently close to key A as to allow key A but little upward or downward motion, which may be regulated by placing projection I almost in contact with jamb D.

The key A is held in its place by the projection I on case C.

Case C may be dispensed with, and roller B held in position by one screw of sufficient strength, and key A held in place by means of a flange on roller B instead of the projection I.

This lock operates in the following manner:

When the window is down and force applied to raise sash E, roller B moves up the inclined face *b*, causing pressure upon jamb D and also upon the jamb at the opposite side of the window, which causes friction between the sash and the opposite jamb, and also between key A and jamb D, thus preventing the sash from rising. By raising key A so that the inclined face *i* comes in contact with roller B, and holding it in this position, sash E is free to move upward. After sash E has been raised to the desired height, by still keeping the face *i* in contact with roller B, and releasing the hold upon sash E, the force of gravity causes roller B to press upon the inclined face *i*, causing friction between the opposite side of the sash and the opposite jamb, also causing friction between key A and jamb D, thus preventing the sash from passing down. To let the window down, raise the sash sufficient to free key A, which drops, bringing the inclined face *b* in contact with roller B, the force of gravity holding it in this position, thus allowing sash E to move down freely, roller B still being in contact with the inclined face *b*. The sash is locked, as before described, thus making it an automatic lock.

Claim.

I claim—

The combination of the double-beveled key A, the case C holding the key, with its flange, and containing a roller B, all arranged as set forth.

ALEXANDER THOMSON.

Witnesses:

R. E. MOORE,
J. B. WATKINS.