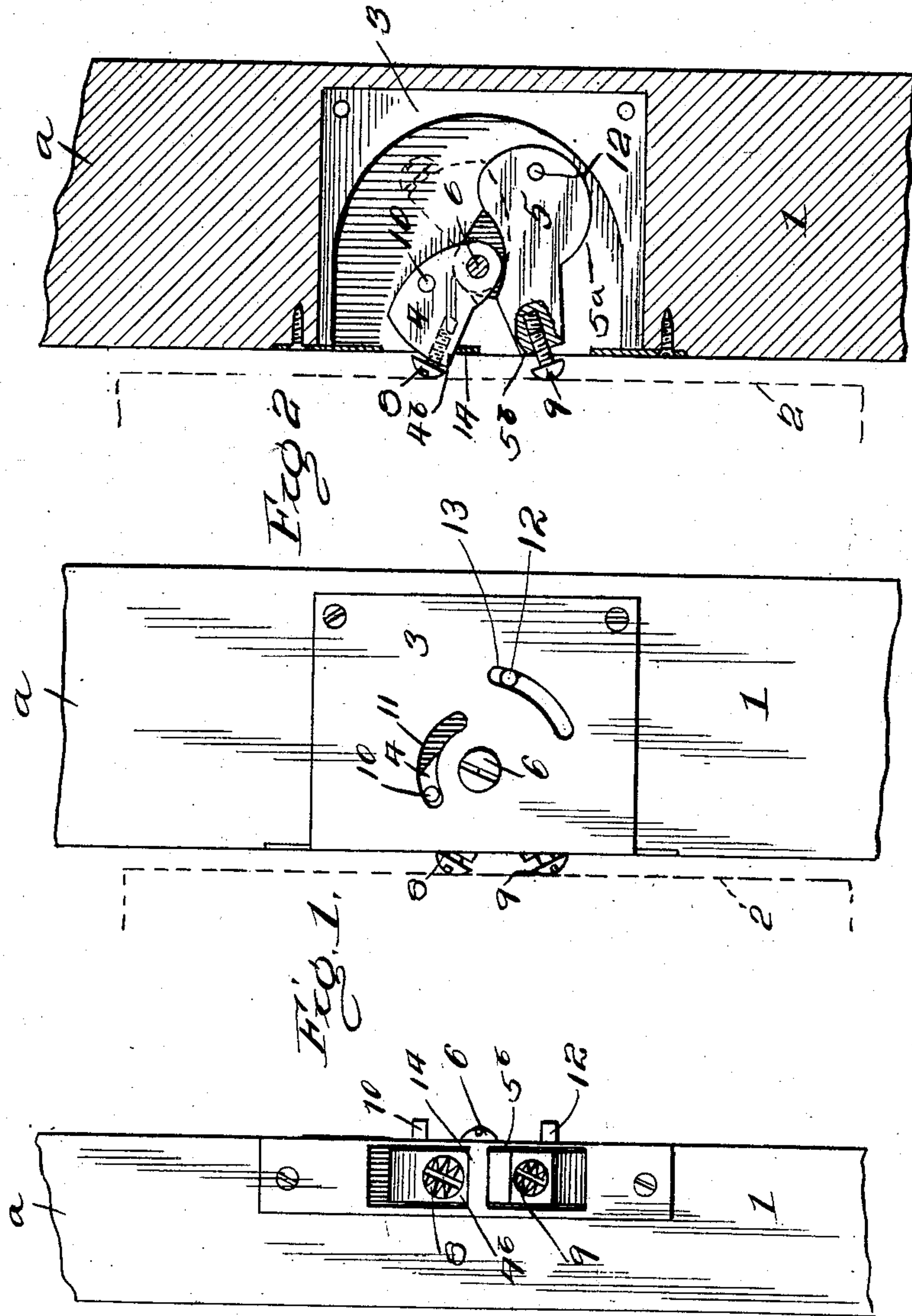


Z. A. & A. K. MILLS,
SASH HOLDER.
APPLICATION FILED NOV. 28, 1910.

994,267.

Patented June 6, 1911.



Witnesses
M. H. Freeman
N. E. Costello

Inventors
Zelmond A. Mills.
Arba K. Mills.
By *A. M. Burns*
Attorney

UNITED STATES PATENT OFFICE.

ZELMOND A. MILLS AND ARBA K. MILLS, OF ALMENA, KANSAS.

SASH-HOLDER.

994,267.

Specification of Letters Patent.

Patented June 6, 1911.

Application filed November 28, 1910. Serial No. 594,545.

To all whom it may concern:

Be it known that we, ZELMOND A. MILLS and ARBA K. MILLS, citizens of the United States, residing at Almena, in the county of Norton and State of Kansas, have invented new and useful Improvements in Sash-Holders, of which the following is a specification.

Our invention provides a combined sash lock and holder, and includes means for adjusting the locking and holding dogs so that the sash may be firmly held in its relative position adjacent the casing.

One of the objects of our invention is to provide a sash lock and holder which is adapted to hold either sash against vertical movement in one direction, when the holder alone is used, or to hold either sash from vertical movement in either direction, when both holder and lock are in their operative positions.

A further and important object of the invention is the provision of means for laterally extending the friction devices proportionately to the lateral distance between the vertical faces of the sash and casing.

Other objects of the invention will be more fully described in the following specification and appended claims.

Now referring to the drawings forming a part of this specification: Figure 1 is a side elevation of our device; Fig. 2 is a sectional view with the outer plate of the casing removed to show the locking dogs; and Fig. 3 is a front or face view of the device.

In the drawings 1 indicates a side of a window sash, and 2 the adjacent casing. Preferably within the side frame of the window sash, as shown in the drawings, is mortised or otherwise inserted a case 3, which contains the locking and holding dogs, the front portion of the case 3 being flush with the inner surface of the sash 1. In the front face of the case 3 are provided a plurality of slots through which project the friction surfaces of the dogs, as will hereafter be more fully described. Within the casing 3 are pivotally mounted the locking dog 4, and the holding dog 5, as clearly shown in Fig. 2. Said dogs are preferably mounted upon a common pivotal axis 6, as shown, although it is obvious that they may be otherwise mounted without departing from the spirit and scope of our invention.

It will be noted that the bottom portion 5^a

of the holding dog 5 is weighted, and that this weighted portion normally tends to project the face 5^b of the dog out of the slot in the face of the case 3. The locking dog 4 is so weighted that it is held by gravity either in its forward position with its face projected through the slot in the case, or in its retracted position, as shown in full and dotted lines in Fig. 2. Both dogs are slightly offset, near the pivot 6, as shown in Fig. 2.

Both the locking dog 4, and the holding dog 5 are provided, upon the faces which are adapted to project through the slot in the case, with friction surfaces, which are adapted to contact with the adjacent surface of the casing 2, as shown in Figs. 1 and 2. Said friction surfaces are shown in the drawings as screws 8 and 9, but it is obvious that equivalent devices may be substituted without departing from the spirit and scope of our invention.

In the form above shown, which we have found preferable because of convenience and economy, the heads or bearing surfaces of the screws 8 and 9 are corrugated or roughened, whereby increased friction will result when they engage the window casing.

The screws 8 and 9 engage screw-threaded surfaces in the outer projecting faces of the dogs 4 and 5, and, by means of a screw driver, or otherwise, may be advanced from the dogs, or screwed to them, as desired. The purpose of this construction will be easily understood. The lateral distance between the vertical faces of the sides of the sash and the casing is not the same in all cases. This may be due to the particular construction of the window, or to the fact that sash or the casing may have shrunk or become swollen. In such cases a friction device having no provision for lateral adjustment would have no pronounced utility, and might produce no friction if the lateral distance between the sash or casing were increased, or might prevent desired vertical movement of the sash, if the said lateral distance were decreased for any reason. With our device an increase or decrease of this lateral distance may be easily compensated for by turning the screws so that they may at all times extend from the dogs sufficiently to take up the lateral space between the sash and the casing. The device is therefore always operative, no matter what the conditions may be.

For the purpose of manually moving the surfaces of the screws 8 and 9 from engagement with the window casing when it is desired to raise or lower the sash, we have provided for operating the dog 4, a pin or stud 10 sliding in a slot 11, and for operating the dog 5 a pin 12, sliding in a slot 13, as clearly shown in Fig. 1. These pins may be carried by the respective dogs 4 and 5.

The operation of our device should be clearly understood from the foregoing descriptions. Normally it may not be necessary nor desired to lock the lower sash against upward movement, in which case the dog 4 may be thrown back, by the pin 10, to the inoperative position shown in Fig. 2. Upon lifting the sash 1 the dog 5 remains inoperative, although the surface 9 is always held by the weight 5^a in contact with the face of the casing 2. When the sash has been raised to the height desired it may be released, and the corrugated surface 9 will immediately grip the contacting face of the casing 2 and the weight of the sash 1 will automatically crowd it against the opposite side of the casing. The sash will therefore be held upon one side by the engagement of the surface 9, and upon the other side by the casing against which it is crowded.

While the dog 5 operates automatically when the sash is raised, in order to lower the sash it must first be lifted slightly and the pin 12 be operated to retract the surface 9. After the sash has been lowered to the desired point the pin 12 is released and the dog 5 again works automatically.

If it is desired to lock the sash against upward movement the dog 4 is thrown over, by means of the pin 10, so that the friction surface 8 projects through the slot and engages the surface of the casing. In this position any upward movement of the sash

will cause it to be crowded against the casing opposite the side engaged by the dog 4.

It is to be noted that the surface 9 is always below, and the surface 8 always above the pivot 6, and that the more they swing in a circle upwardly and downwardly respectively, the more firmly they press the sash against the casing, and the more firmly is the sash held in its position.

It is obvious that the friction devices may be attached to or into the casing and be adapted to bear upon the sash, or that the dogs may be otherwise mounted, but in the drawings we have shown the preferred embodiment of our invention, it being understood that we do not confine ourselves to the embodiments here shown, but claim all such modifications as fall fairly within the scope of our invention.

Having thus described our invention, what we claim and desire to secure by Letters Patent is:

1. In a window, the combination between a sash and a casing, of a plurality of pivotally mounted dogs carried by the sash, each of said dogs carrying a laterally extensible, serrated friction surface adapted to bear against the window casing.

2. In a window, the combination between a sash and a casing, of friction dogs carried by the sash, said dogs being provided with laterally extensible screws having serrated heads adapted to bear against the casing.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

ZELMOND A. MILLS.
ARBA K. MILLS.

Witnesses:

J. A. M. YANCEY,
V. E. DYATT.