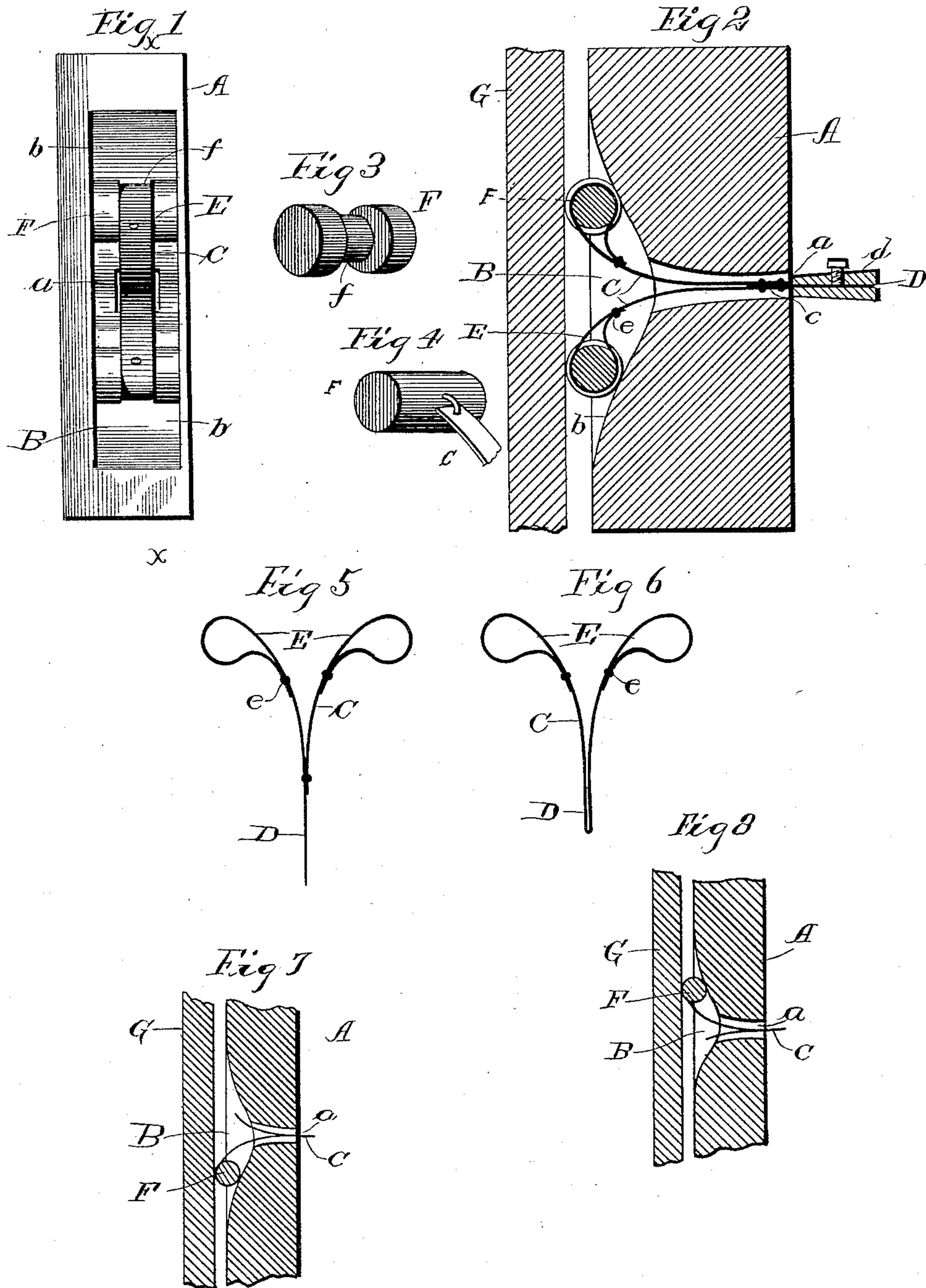


(No Model.)

A. T. CHURCH.  
SASH HOLDER.

No. 433,672.

Patented Aug. 5, 1890.



Witnesses  
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# UNITED STATES PATENT OFFICE.

ALVIN T. CHURCH, OF EAST OAKLAND, CALIFORNIA.

## SASH-HOLDER.

SPECIFICATION forming part of Letters Patent No. 433,672, dated August 5, 1890.

Application filed April 21, 1890. Serial No. 348,760. (No model.)

*To all whom it may concern:*

Be it known that I, ALVIN T. CHURCH, a citizen of the United States, residing at East Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Sash-Holders; 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, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to sash-holders and locks for windows, and has for its object to provide a device so constructed that by the action of a double spring working through an opening in a sash-stile, rollers, or holding-blocks attached to the ends of the spring and resting on inclined ways in the stile will be forced outward against the window-frame by the natural tension of the spring, and thereby hold or lock the sash in any desired position; and the invention consists in the construction hereinafter described, and more particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a plan view of a sash-stile with my improvement attached thereto. Fig. 2 is a vertical section on the line *xx* of Fig. 1, with the addition of the window-frame, showing the rollers in contact with the frame. Fig. 3 is a perspective view of one of the rollers, and Fig. 4 is a similar view of a modified form of roller or holding-block and attachment. Figs. 5 and 6 illustrate slightly-modified forms of tension-springs used in the sash-stiles. Fig. 7 shows the locking action of the lower roller in securing the lower sash when the upper roller of the spring is dispensed with, and Fig. 8 illustrates the same action upon the upper sash when the lower roller of the spring is detached.

Corresponding letters in each figure of the drawings refer to like parts of the device.

A represents a sash-stile of ordinary construction having an opening *a* extending outward from the side of the window-pane toward the casing. In the outer or casing edge of the stile there is a socket B, formed by cutting an inwardly inclined or beveled mortise from above and below, so that its deepest cut

portion in the stile concentrates at the extended enlarged opening of the opening *a*, the outer walls of the opening forming an obtuse angle with the inclined bottom of the socket.

Two ordinary leaf-springs C are secured together at their inner ends *c*, by means of rivets or other suitable fastenings, and have a handle extension-piece D held between them and fastened by the same rivets. The inner ends of these springs thus secured are inserted in the opening *a* of the stile from without or through the socket B, and are extended nearly through the opening, while the extension-piece D passes through and serves as an attachment for a handle *d* for operating the springs.

The window-holder may be made to fit a window-stile of any width by making the extension-piece D, secured between the ends of the springs, of greater length than is ordinarily desired, so that when applied and adjusted in the handle *d* and secured by a set-screw the portion projecting beyond the handle may be cut off even with the outer end of the handle. The outer ends of the springs are extended in opposite directions from each other to follow the inclinations of the floor *b* of the socket B, and have their ends turned upon themselves and riveted or otherwise securely fastened at *e* to form loops E. Rollers or sheaves F are formed of a length a little less than the width of the socket B, and are adapted to work therein and to be moved up and down on the floor or bottom *b* of the socket. These rollers have their central portions recessed at *f* to form journals for holding the loops E of the springs, in which the loops are depressed below the working-face or periphery of the roller to prevent their coming in contact with the floor of the socket or the side of the window-frame. The rollers may be made of wood, hard rubber, metal, or any other suitable material, and solid or hollow, as preferred. I do not, however, limit my invention to the use of rollers, as the outer ends of the springs may be secured to the sides of the rollers or to holding-blocks by staples or other suitable means, as shown in Fig. 4, and the blocks made to slide on the floor or incline *b* of the socket, as the springs are drawn inward or by their tension are thrown outward,



so that the blocks will come in contact with the window-casing G and bind the sash-stile against any ordinary movement up or down.

In place of inserting an extension-piece D between the ends of the springs, as heretofore described, one of the springs C may have its ends extended or made longer than the other spring, as shown in Fig. 5, so as to project through the opening *a* of the sash-stile for the attachment of the handle *d*; or the springs may be made of one continuous piece of metal, as shown in Fig. 6, by bending the metal upon itself in the center of its length before it is tempered, and so compressing the two sections together as to form one double tongue of sufficient length to project through the opening in the stile for the attachment of the handle, as before stated. As heretofore described, the two springs coact by their natural tension outward to force the rollers or holding-blocks up and down on the incline bottom *b* of the socket and wedge them between the stile A and sash-frame G, thereby holding and locking the sash in a fixed position until the rollers are withdrawn by means of the handle *d*. By this construction of my device it will be observed that it serves both as a sash-holder and a sash-lock, from the fact that the usual pressure of the springs throws the rollers outward sufficiently to hold the sash in position; but when there is more than ordinary pressure upon the sash the tendency of the parts is to bind the upper roller more closely between the stile and frame, and thereby by fix or lock the parts immovably together until the spring is withdrawn and the rollers released from their hold.

In Figs. 7 and 8 I have shown a slightly-modified construction of my invention, which consists in dispensing with one of the rollers F, thereby adapting it especially for locking either the upper or lower sash alone, depending upon its application to the window-stile. In Fig. 7 the locking device is shown as applied to the stile of the lower sash of a window, in which case the roller of the upper spring is removed. The tension of the spring being outward, as the side of the upper spring bears against the enlarged outer end of the opening *a* in the stile, the roller F is forced downward and outward by the lower spring between the stile and casing. While the single roller is in this position the greater the upward strain upon the sash the more securely the rollers are bound against the cas-

ing, and locks the sash in position until the roller is withdrawn from its binding-seat by means of the handle or extension D of the spring. In Fig. 8 the single roller is shown as applied to the upper spring C, for the purpose of locking the upper sash by the rollers being crowded upward and wedged against the casing as the sash-stile is forced downward upon it, in substantially the same way as before set forth in the locking of the lower sash, as shown in Fig. 7.

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

1. In a sash holder and lock, the combination, with a stile having an outwardly-extending opening communicating with an inwardly-inclined socket, of springs in the opening having an inwardly-extending handle, with their outer ends extending in opposite directions in the socket, and carrying holding rollers or blocks pressed against the window-frame by the tension of the springs, as set forth.

2. The combination, with a sash-stile having an outwardly-extending opening enlarged at its outer end and forming an obtuse angle with the floor of an inwardly-inclined socket, of springs in the opening having a handle-extension projecting inwardly beyond said opening, provided with an adjustable handle, and the outer ends of the spring turned in opposite directions in the socket and secured to holding-rollers thrown outward by the tension of the spring to hold the sash in position, as set forth.

3. The combination, with a sash-stile having an outwardly-extending opening enlarged at its outer end and forming an obtuse angle with the floor of an inwardly-inclined socket, of springs in the opening having attached thereto an inwardly-extending handle attachment, the outer ends of the springs forming loops turned in opposite directions and secured to recesses in the rollers on the inclined floor within the socket, said rollers being thrown outward against the window-casing by the tension of the springs and withdrawn by the handle, as set forth.

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

ALVIN T. CHURCH.

Witnesses:

JENNIE L. CHURCH,  
ELLEN S. CHURCH.