

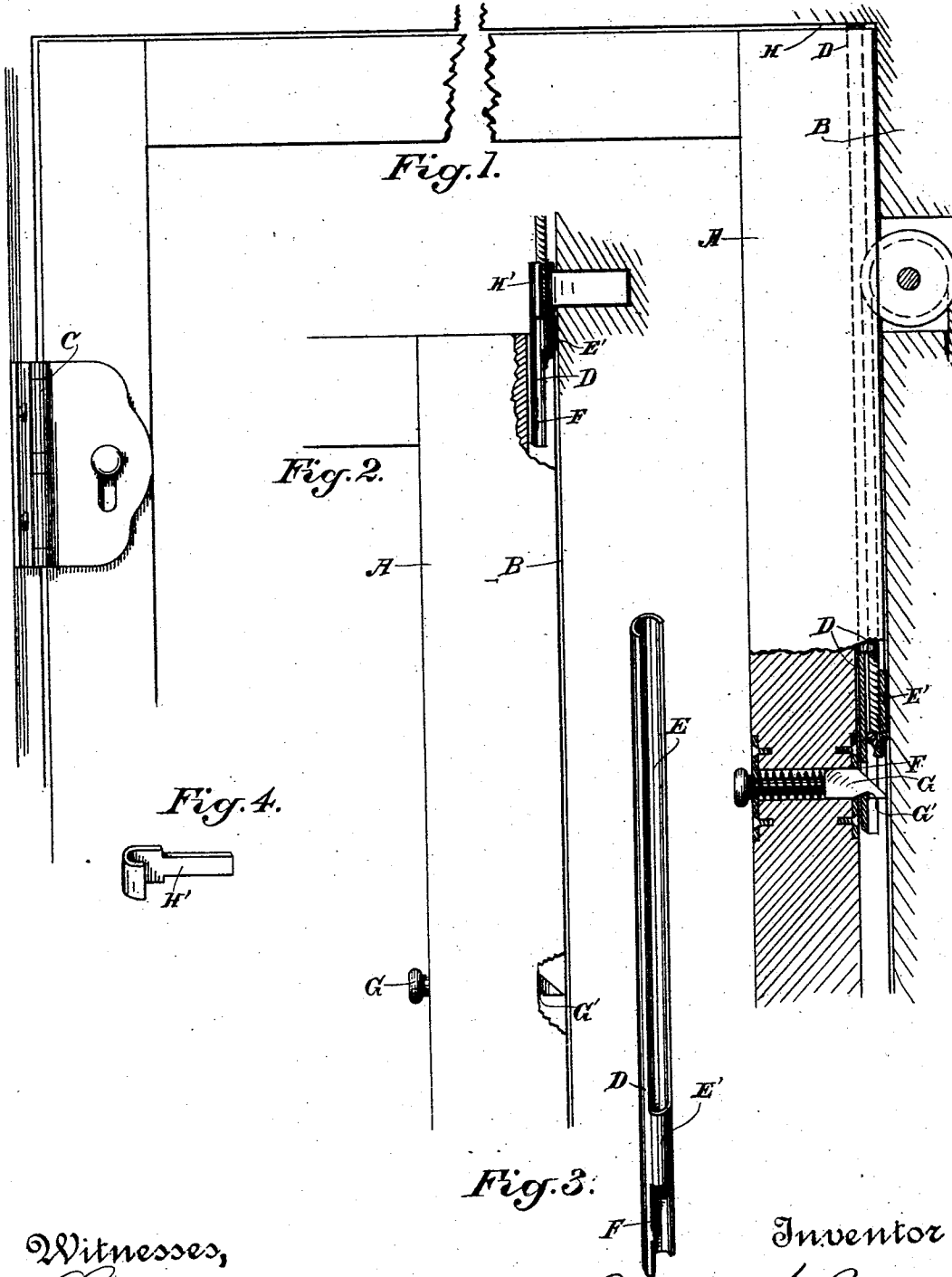
(No Model.)

E. S. BARNEY.

ADJUSTABLE SLIDING AND SWINGING WINDOW SASH.

No. 569,146.

Patented Oct. 6, 1896.



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ADJUSTABLE SLIDING AND SWINGING WINDOW-SASH.

SPECIFICATION forming part of Letters Patent No. 569,146, dated October 6, 1896.

Application filed January 27, 1896. Serial No. 576,932. (No model.)

To all whom it may concern:

Be it known that I, EDWARD S. BARNEY, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Adjustable Sliding and Swinging Window-Sashes; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of sashes which are adapted to ordinarily slide in vertical guides in the casing, and which are also adapted to be hinged so as to be temporarily opened inwardly from the casing about the hinges for the purpose of obtaining access to both sides of the window.

It consists, essentially, in a novel device to which the cord is attached and which is so constructed as to be detachably connected with the sash.

It also consists in details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a view of a sash, showing the cord-retainer connected with it. Fig. 2 shows the short form of retainer, the movable stop, and the sash-latch disengaged. Fig. 3 is a perspective view of the cord-retainer. Fig. 4 is a detached view of the stop.

A is the sash, which is adapted to slide in grooves or channels in the casing B, and C are hinges of any suitable or desired description by which one side of the sash may be temporarily connected with the casing, so that when the stop has been removed from the other side the sash can be swung inwardly about the hinges. In order to allow the sash to thus swing, it is necessary to disengage the cord of the balance-weight, and in order to do this conveniently and to engage the cords with the sash and lock them in engagement when the sash is in position to slide in the casing I employ the following device:

D is the cord-retainer, which is adapted to hold the window cord, band, or other fastening. This retainer consists of a semitubular piece E, having an interior diameter sufficient to allow the cord to fit easily within it, and the exterior surface is fitted to lie in a groove or channel in the edge of the sash, or, if preferred, it may be reversed and its con-

vex surface allowed to slide in a correspondingly-shaped groove in the casing, in which case the edge of the sash would not need to be grooved. This retainer may be made semicylindrical or polygonal, as desired, and it has a portion E', shown in the present case near the lower end, made completely cylindrical or bent around so as to form an engagement for the knot or enlargement in the end of the cord, which is thus secured to the cord-retainer. The cord passes from this point up over a pulley in the usual manner and thence extends down to the weight which serves to counterbalance the sash. Near the bottom of the retainer a hole or slot is made, as shown at F, and a pin or bolt G is slidable transversely through the sash, so that its point will engage the slot in the cord-retainer when the two are brought into line, and thus lock it to the sash. When the two are thus engaged, it will be seen that the weight upon the cord will act to counterbalance the sash, the cord-retainer moving with the sash as the latter slides up or down. In order to make this engagement automatic, the end of the sliding bolt is beveled upon the upper side, so that when the cord-retainer is held stationary at any point the sash is engaged with it by simply sliding it up until the beveled point of the bolt drops into the slot in the cord-retainer, a spring acting to press the bolt forward. Then when the sash is again drawn down, the cord-retainer will move with it and thereafter form a part of the moving structure. The inner end of the bolt has a suitable head by which it can be withdrawn when the parts are in position to disengage.

The sliding bolt has a notch G' formed upon the lower side at such a point that when the bolt has entered the slot in the cord-retainer this notch will engage the edge of the slot, and as long as the weight acts to pull the cord-retainer and sash upwardly this notch will remain locked with the edge of the slot and it will be impossible to withdraw the bolt. This prevents the weight from being disengaged when the sash is down and thus prevents the weight from dropping violently and causing injury.

When it is desired to disengage the cord-retainer from the sash, it is done by pushing the sash up to the top of its travel. This

brings the upper end of the cord-retainer into contact with a stop, as shown at H, which prevents its moving any farther. This contact takes place just before the sash has
5 reached the highest point to which it can be moved, and a little farther movement of the sash lifts the locking pin or bolt enough to disengage the transverse notch from the edge of the slot. The bolt may then be withdrawn
10 by pulling it backward through the sash until it is released from the cord-retainer. The sash is then slid down approximately to the bottom of its travel, when it will be clear of the cord-retainer, and the hinges upon the
15 opposite side being properly engaged the stop in the sash can be removed and the sash swung about its hinges for any purpose desired. When the sash is again closed into its place in the casing, it is moved upward
20 until the sliding sash-bolt G reaches the bottom of the cord-retainer, when it will be pressed inwardly by reason of the beveled upper side of its inner end, and when it reaches the slot in the retainer it will be immediately forced into it automatically by the
25 action of the spring. The transverse notch engaging the edge of the slot will lock the two together as soon as the sash is drawn down so that the weight is again caused to pull upwardly upon the retainer, and the two will remain thus locked together without any danger of disengagement until the sash is again
30 pushed to its highest point.

In some cases the cord-retainer is made
35 short, as shown in Fig. 2, and a removable stop H' is employed to arrest and hold it without allowing the retainer to slide to the top of the window. This stop H' has the outer end bent into a semicircular form, so that it
40 will slip over the cord, and it has an extension which is adapted to fit into a slot or opening or be otherwise attached to the window-casing. This device being thus attached, the curved portion will clasp the window-cord
45 above the cord-retainer and the latter will be arrested and held by the stop wherever it may be inserted. The retainer may then be disengaged from the sash, as previously described, leaving the sash free to be turned
50 upon its hinges.

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

1. The combination with a window-sash, of a cord-retainer vertically slidable between
55 the sash and the casing, said retainer having a slot or catch and a bevel-pointed latch slidable through the sash at right angles with its line of travel, and adapted to automatically
60 engage the retainer when in line with the slot.

2. The combination with a window-sash and a hinge about which it is turnable out of its line of travel, of a cord-retainer vertically
65 slidable between the edge of the sash and the casing, having a slot, a transversely-slidable spring-actuated bolt upon the sash, the point of which is formed to automatically engage
70 the cord-retainer, and a locking-notch on the bolt to prevent its being withdrawn until the sash is relieved of the pull of the weights.

3. The combination with a window-sash, of a cord-retainer vertically slidable between
75 the edge of the sash and the casing having its upper end adapted to contact with a stop on the casing when the sash is at the top of its vertical travel, whereby the sash is relieved
80 of the pull of the weights, a transversely-sliding bolt movable on the sash with its point adapted to automatically engage a slot in the cord-retainer when in line therewith, and a
85 notch in the bolt which locks it in engagement with the retainer, and prevents its withdrawal until the retainer contacts with the stop and allows the sash to move upward
90 enough to disengage the lock.

4. The combination, with a window-sash, a cord-retainer vertically slidable between the
95 sash and the casing and means for engaging and locking the retainer, of a removable stop H' adapted to be secured at various points on the casing, having a curved end through
100 which the weight-cord is slidable and against which the retainer is arrested when released from its locking means.

In witness whereof I have hereunto set my
105 hand.

EDWARD S. BARNEY.

Witnesses:

S. H. NOURSE,
H. F. ASCHECK.