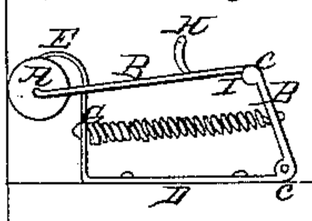
W. H. Mitchell,

Sash Holder.

No. 25,666. Patented Oct. 4, 1859.

Fig. 3.



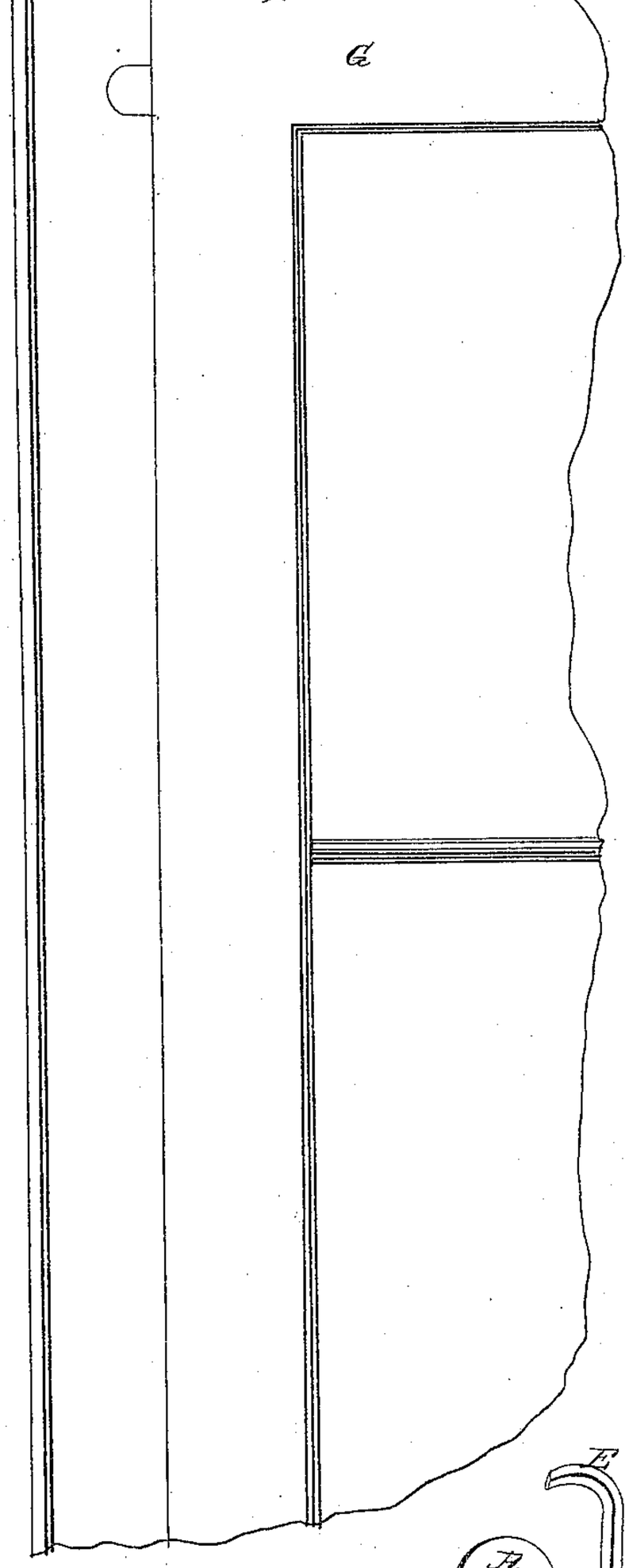
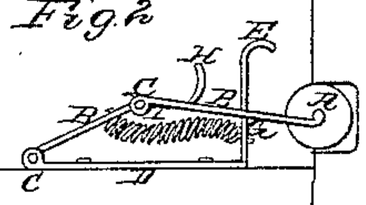


Fig. 2



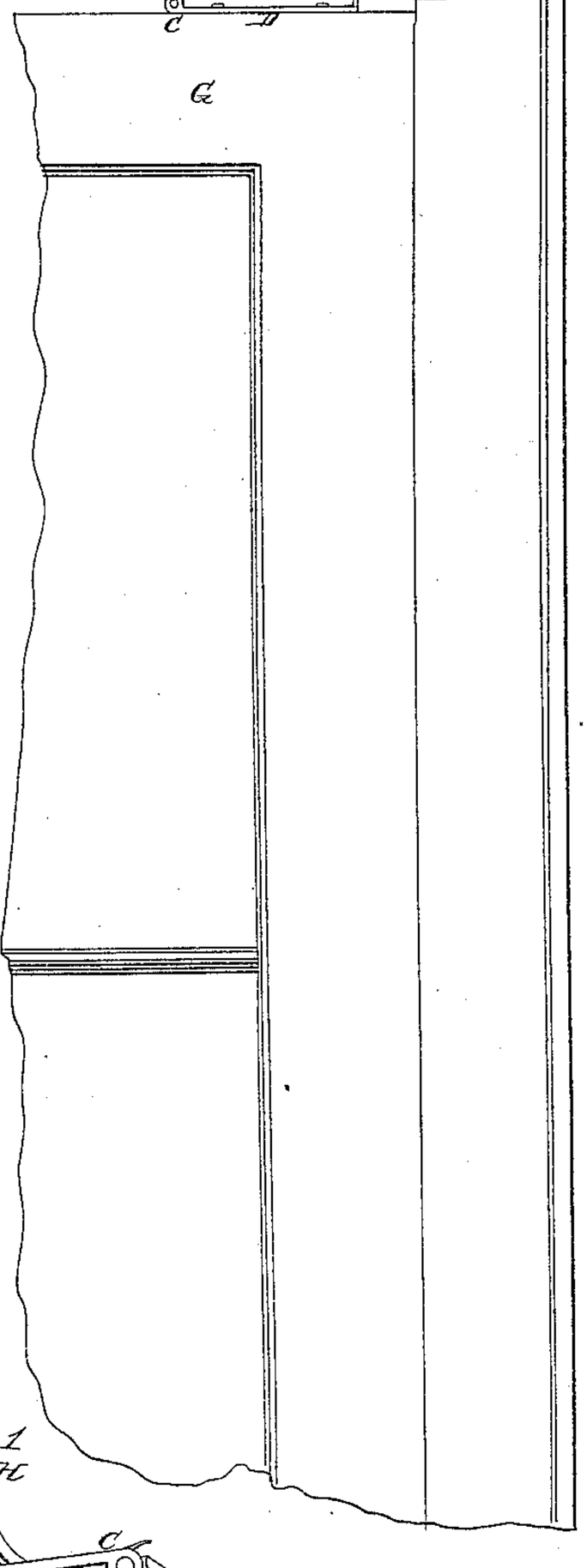


Fig. 4

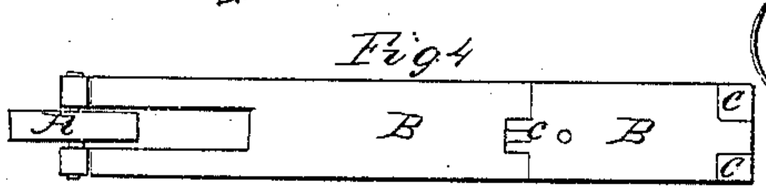
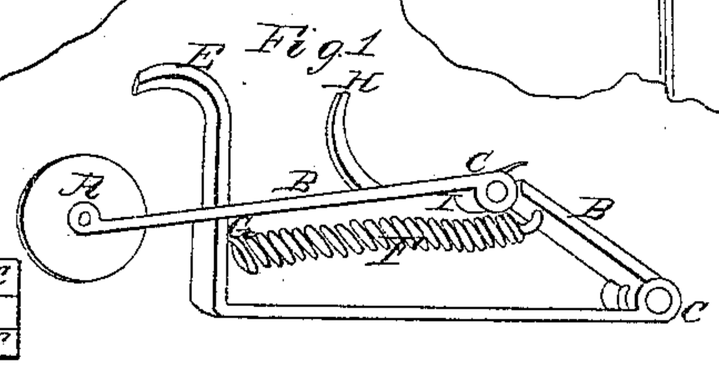


Fig. 1



UNITED STATES PATENT OFFICE.

WILLIAM HOWARD MITCHELL, OF SAN FRANCISCO, CALIFORNIA.

WINDOW-SASH SUPPORTER.

Specification of Letters Patent No. 25,666, dated October 4, 1859.

To all whom it may concern:

Be it known that I, WILLIAM HOWARD MITCHELL, of the city and county of San Francisco and State of California, have invented a new and useful Apparatus for Locking, Hoisting, and Holding Window-Sashes, which I call Mitchell's Window Lock, Hoister, and Holder; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1, is a perspective view; Figs. 2 and 3 showing the method of applying the same to the window; and Fig. 4, showing the top side of the jointed arm.

The nature of my invention consists 1st in the combination of a friction roller, double jointed arm, self adjusting spiral spring and stationary stop.

It consists 2nd: In the combination of the above with a semicircular recess in the window frame.

The arrangement and operation of the parts included in the first clause of the statement of the nature of my invention are very peculiar and advantageous, to wit:

1st. When the parts have been properly adjusted and the window is being raised, the spring acts upon the friction roller in such a manner that said roller receives the weight of the sash, partly balances the same and thus the labor of elevating the sash is very materially lessened.

2nd. When the window-sash is fully hoisted, if it is not too heavy, the force of the spring upon the friction roller and the friction of the latter on the frame will retain the sash, but should the weight of the sash be too great, provision is made for a slight descent of the same and as this descent is occurring the roller is elevated in such a manner that the tension of the spring is increased, and now if the weight is still too great, the roller rises still higher as the sash descends and suddenly gears with a stationary stop and all further descent of the sash prevented.

The combination included in the second clause of the statement of the nature of my invention is also novel, for the same friction roller which is used for assisting in the elevation and the retention of the sash after it is elevated is also made to answer as a lock or permanent fastening for holding the sash down against burglars. The roller, when the sash is down entering a recess in the frame, and if said recess is deep enough and the axis of the roller extends into said recess some distance beyond the face of the window jamb, it will be confined there by the double jointed angular arm and the spring, in such a manner as to render impossible the raising of the sash without first withdrawing the roller with the hand.

D, is an ⊥ shaped plate to be fastened to the top of a sash, N, or may be let into a sash; A, is a friction roller attached to a double jointed arm B, B; C, C, are hinge joints of the arm B, B; the plate D terminates in a curved end E; the arm B, B, has a slot as represented in Fig. 4, to receive the pulley or friction roller A, and also being passed over the end E, serves as a guide to keep the arm in place.

When the window is closed the spiral spring F, draws the arm B, forward so that the roller A, rests in a small recess *m*, in the side of the window frame as represented in Fig. 2, and the arm B, drops upon the shoulder G, securely locking the window sash; to raise the window draw back the arm B, by the thumb piece H, raising it above the recess, and hoist the window with the hand; the pressure of the roller, by means of the spring F, against the side of the window frame, counteracts much the weight of the sash, thereby assisting in the hoisting of the same; when the sash is raised to the desired position the pressure of the roller against the window frame will keep it in place, should the weight of the sash be too great it may fall a little, but in so doing the roller would be raised till it reaches the point E, increasing the angle of the arm at I, and consequently giving greater tension to the spring F causing the roller to press more closely against the window frame, should the weight still be too great the roller will slip against the plate and be effectually locked by the curved end E, and the sash be fully sustained at the desired point.

I do not claim the roller A, pressing against the window frame, for the purpose of sustaining the sash, as that has been heretofore in use.

What I claim as my invention and desire to secure by Letters Patent, is—

1. The roller A arranged on an angular double jointed arm B, B, C, C, so as to have

slight play up or down between two stops E, G, accordingly as it is operated upon by a spring F, or the weight of the sash N substantially as and for the purposes set forth.

2. The combination of the angular double jointed arm B, B, C, C, spring F, thumb piece H, friction roller A, and semi-circular recess *m*, in the window frame, substantially as and for the purposes set forth.

WM. HOWARD MITCHELL.

Witnesses:
J. H. PEIRCE,
EDWARD A. BREED.