

G. A. STURGES.
Sash-Holders.

No. 141,184.

Patented July 22, 1873.

Fig. 1

Fig. 2

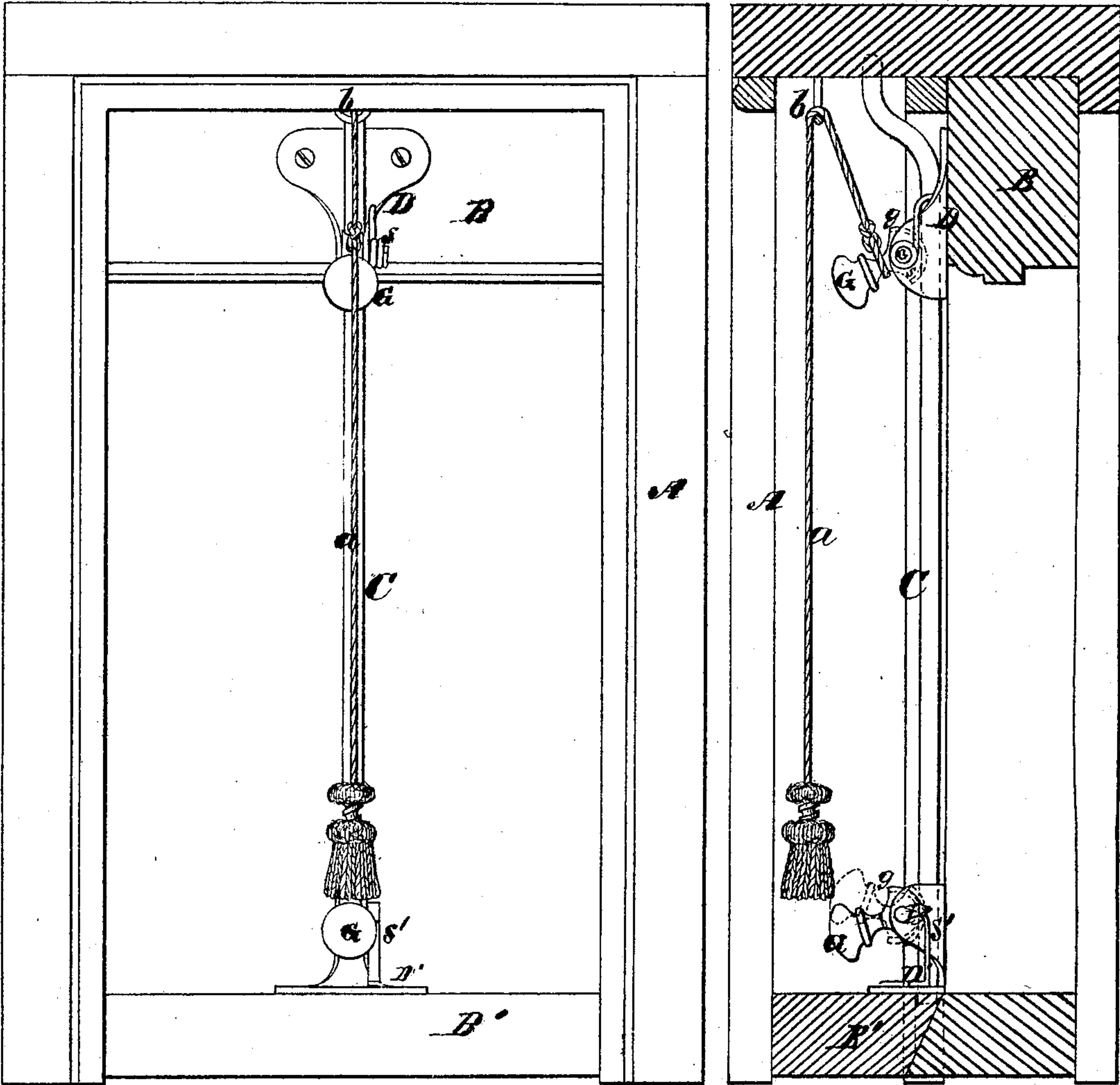
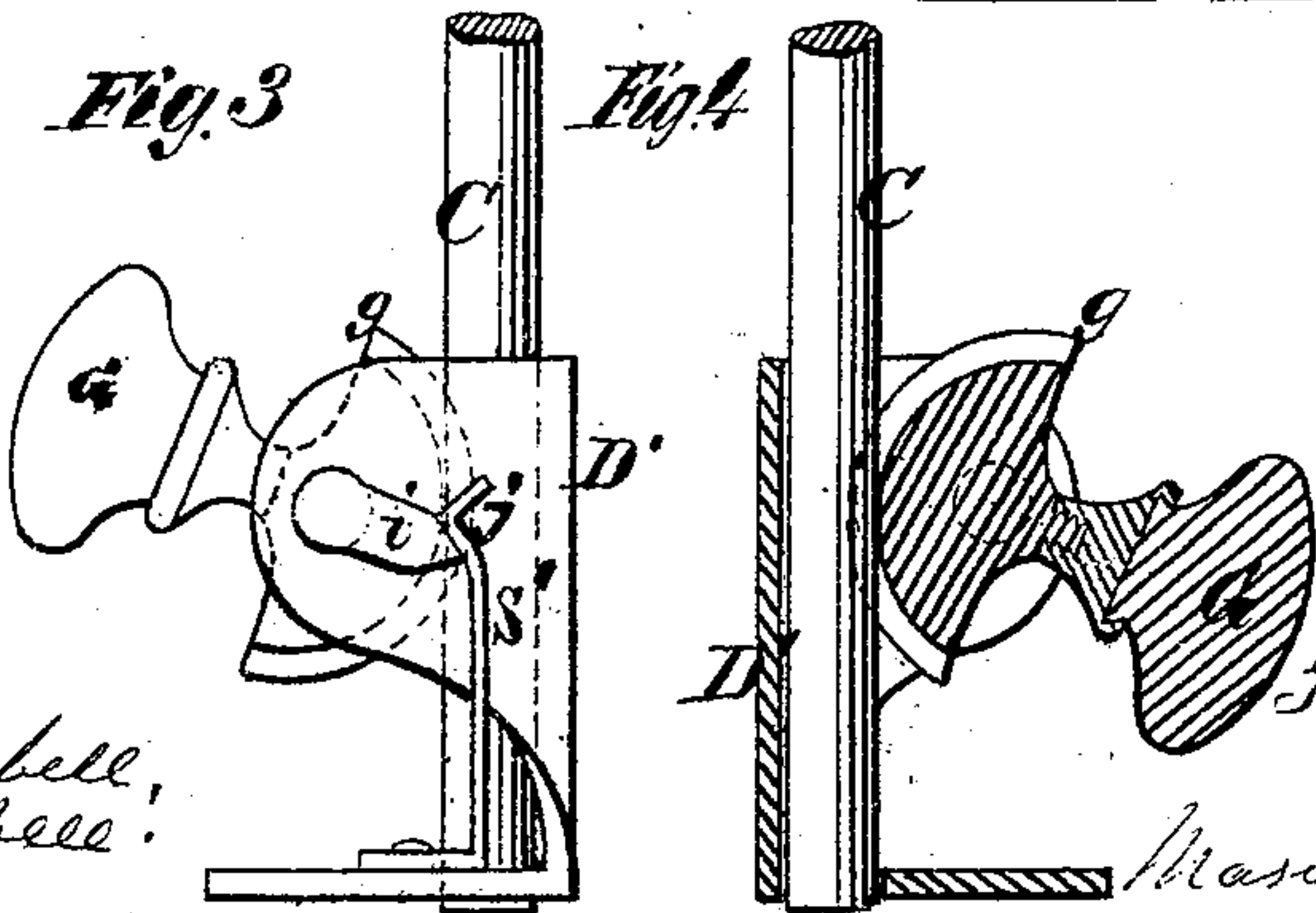


Fig. 3

Fig. 4



Witnesses.
R. T. Campbell,
J. N. Campbell.

Inventor
George A. Sturges
by
Mason Hemick & Lawrence
Attys

UNITED STATES PATENT OFFICE.

GEORGE A. STURGES, OF DELHI, NEW YORK, ASSIGNOR TO HIMSELF AND
DEXTER PETTENGILL, OF SAME PLACE.

IMPROVEMENT IN SASH-HOLDERS.

Specification forming part of Letters Patent No. **141,184**, dated July 22, 1873; application filed
June 5, 1873.

To all whom it may concern:

Be it known that I, GEORGE A. STURGES, of Delhi, in the county of Delaware and State of New York, have invented a new and Improved Sash-Lock; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a front view of a window-frame having my improved locking devices applied to the sash-rails thereof. Fig. 2 is a vertical section through the same. Figs. 3 and 4 are views of the bottom locking device enlarged.

Similar letters of reference indicate corresponding parts in the several figures.

The object of my invention is to combine, with a suspension-rod which is secured vertically to a window-frame, a locking device for each sash; and it consists, first, in an eccentric cam and a knob or sash-bracket, through which passes a rod, which is secured in a vertical position to a window-frame; second, in a V-shaped spring-catch combined with a toe on the pivot of a lower eccentric segment, and with the lower sash-rails and a vertical rod; and, third, in the combination of a lower double locking-segment and its spring-catch with a single locking upper segment and a pull-cord, all as will be hereinafter described.

The following description of my invention will enable others skilled in the art to understand it.

In the accompanying drawings, A represents a window-frame; B, the top rail of the upper sash, and B' the bottom rail of the lower sash. C represents a suspension-rod, which is secured centrally to the frame A in a vertical position. This rod C passes through two brackets, D D', one of which, D, is secured rigidly to the top rail B, and the other, D', is similarly secured to the bottom rail B', as shown in Figs. 1 and 2. These brackets have pivoted to them, eccentrically, grooved segments *g g*, to which knob-handles G are secured. The grooved surfaces of the segments are in line with the rod C, so that when the stem of the knob of each segment is moved above or below a horizontal plane, such seg-

ment will bear firmly against, and lock the sash to, the bar C. When the stem of the knob of each segment is in a horizontal plane the sash to which such knob and segment are applied is free to be raised and depressed. The upper sash-segment *g* is held in contact with the suspension-rod C, or, in other words, locked to this rod, by means of a spring, *s*, which is secured at one end to the bracket D, and after coiling around the pivot *c* of the segment *g* is secured by its other end to this pivot. Instead of a spring, *s*, for pressing the segment against the rod C, the weight of the knob G may be depended on for such purpose. The knob G of the segment on the rail B has a cord, *a*, attached to it, which cord is carried over a loop or pulley, *b*, fastened to the sash A, as shown in Figs. 1 and 2, and allowed to hang down, so that by pulling on it the segment will be freed from the rod C, and the upper sash may be moved up and down. By releasing the cord *a* the spring *s*, or the weight of the knob G, as the case may be, will engage the segment with the rod C and lock the sash to it. The segment *g* of the lower sash-rail B' is moved into or out of locking position by the hand applied on its knob.

It is necessary to lock the lower sash when down as well as when it is raised, to do which, positively, I employ a catch-spring, *s'*, and a toe, *i*. The catch-spring *s'* is secured upon the bracket D', and its upper free end has a V-shaped bend, *j*, (see Fig. 3,) formed on it, which serves as a double retainer for the toe *i*. The toe *i* is fast on the pivot of the lower segment *g*, and bears against one side or the other of the V-shaped bend *j* of spring *s*, so as to allow this spring to hold the lower segment *g* in either one of the two positions shown in Fig. 2 in full and dotted lines.

To raise the lower sash the knob G of the lower segment is grasped by the hand and adjusted in a horizontal position, which releases the segment *g* from the rod C. The lower sash is then free to be raised or depressed. The lower sash can be raised when the knob of its segment is depressed, as shown in Fig. 4, or this sash can be depressed when the segment is depressed, as shown in Fig. 3;

consequently it is not necessary to hold the lower segment in a horizontal position while raising or depressing the sash.

It will be seen from the above description that I employ for the upper sash an eccentric cam-fastening, which is released from its rod C by means of a cord, *a*, and that I employ in combination therewith another eccentric cam for the lower sash, which is held in its proper position by means of a spring, *s'*, and a toe, *i*. I am thus enabled to raise or lower the two sashes at will, and to hold either sash firmly in any desired position.

I am aware of the patent of E. Culver and J. L. Pomeroy, dated April 28, 1863, No. 38,290, and therefore I do not wish to be understood as claiming anything which is shown in said patent as my invention; but

Having described my invention, what I

claim as new, and desire to secure by Letters Patent, is—

1. An eccentric cam, *g*, and knob or handle G, applied to a sash-bracket, through which passes a rod, C, that is secured in a vertical position to a window-frame, A, substantially as described.

2. The V-shaped spring-catch *s'*, combined with a toe, *i*, on the pivot of the lower eccentric segment *g*, and with the lower sash-rail B' and rod C, substantially as described.

3. The combination of the lower double locking-segment *g* and its spring-catch *s'* with the single locking upper segment *g* and the pull-cord *a*, substantially as described.

GEORGE ANSON STURGES.

Witnesses:

C. H. BELL,
I. D. YALE.