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PATENTED JUN 14 1870

# R. B. HUGUNIN'S AUTOMATIC WINDOW SUPPORTER.

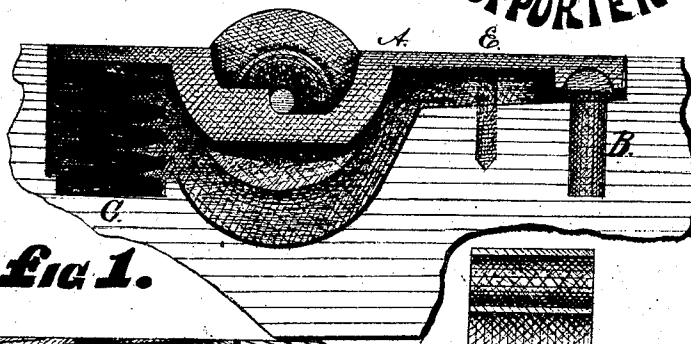
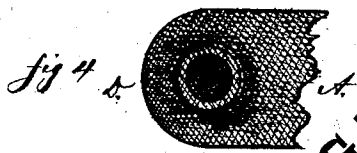


Fig 1.

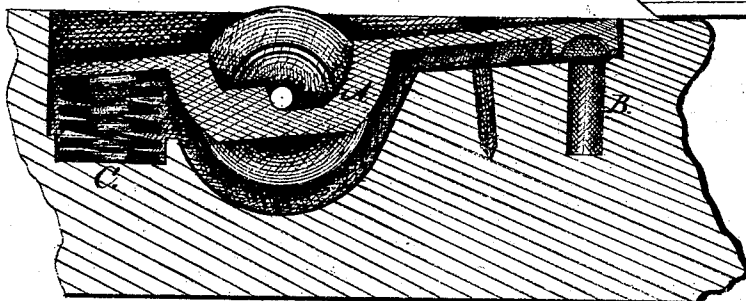


Fig 2.

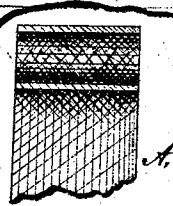


Fig 3.

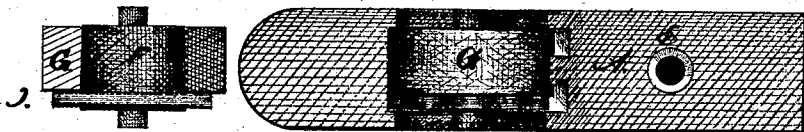
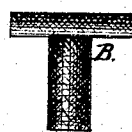


Fig 5.

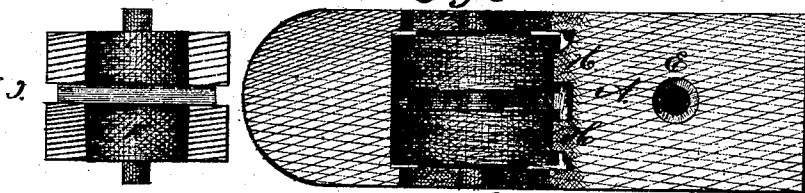


Fig 6.

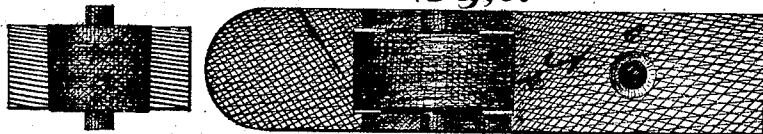
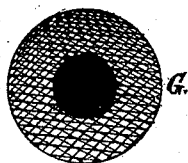
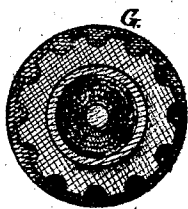


Fig 7.

Witnesses:  
L. W. Lynde  
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ROBERT B. HUGUNIN, OF CLEVELAND, OHIO.

Letters Patent No. 104,314, dated June 14, 1870.

## IMPROVEMENT IN SASH-HOLDERS.

The Schedule referred to in these Letters Patent and making part of the same.

I, ROBERT B. HUGUNIN, of Cleveland, county of Cuyahoga, State of Ohio, have invented certain Improvements in "Window-sash Supporters," of which the following is a specification.

### Nature of the Invention.

This invention consists in using, in connection with a sash-holder plate, a pivot, constructed with a concave or convex top surface, and a projection or socket corresponding with the top of the pivot, formed on the under side of the plate, the two surfaces acting together, so as to receive the wear and prevent motion of plate of a longitudinal character, during raising or lowering of the sash, and affording the qualities required, as a hinge, in allowing the roller-end of the plate to raise and fall, according to pressure conveyed from sash.

### Description of Drawing, &c., Accompanying this Specification.

Figure 1, elevation of pivoted plate, showing pivot and spring, as in use.

Figure 2, same as fig. 1, with spring-end compressed back.

Figure 3, illustration of a section of pivot-end, with pivot and socket.

Figure 4, illustration of a section spring-end, with projection for anchoring spring.

Figures 5, 6, and 7, view of plates using various kinds of rollers and friction-surfaces.

### General Description.

A, roller or pivoted plate, with socket for pivot cast on its under side.

B, pivot to fit the socket, cast on the under side of plate A. This pivot is constructed so as to be driven into a hole bored for it in the mortise, in which hole it is held firmly, and, in turn, holds the plate. This pivot may be made convex, &c., on its top side, to fit concave socket on the under side of the plate, or in any other form that will allow a rocking motion, &c.

C, spring used, in combination with said pivot or

hinge, for the purpose of allowing the end of the plate and roller on which it is used to adjust itself to the space and pressure, &c.

By having this spring of a good length, so as to throw the end of the plate well out, a sash can be used in a window without removing the stops, by putting one edge against the roller-plate, and compressing it back, so as to allow the sash to slip in on the other side, &c., when the spring will force it into its proper position, and keep it there, till pressed back and taken out.

D, projection on the under side of the plate, for anchoring the spring.

E, a common wood-screw for securing the plate.

F, body of the roller.

G, roller covering.

H H', friction surfaces on plate A.

I, toothed surface of metal portion of the roller, the same being on the end, or in the center, as per figs. 5 and 6.

Any number of rollers may be used in one plate desired.

I am aware that the roller-plate or case has been permanently pivoted at one end and free at the other end; this I do not claim.

### Claims.

I claim—

1. In combination with a sash-holder, plate, and roller, the concave or convex surfaced pivot B, and the corresponding surface on the under side of plate, by which it is removably connected, substantially as and for the purposes herein described.

2. In combination with said removably connected pivoted or hinged end, the use of the spring on the opposite end, substantially as and for the purposes described.

R. B. HUGUNIN.

Witnesses:

G. W. LYNDE,  
JAMES TOUSLEY.