(No Model.)

S. COLLINS.

SASH HOLDER.

No. 453,881. Patented June 9, 1891.

Fig. 1.

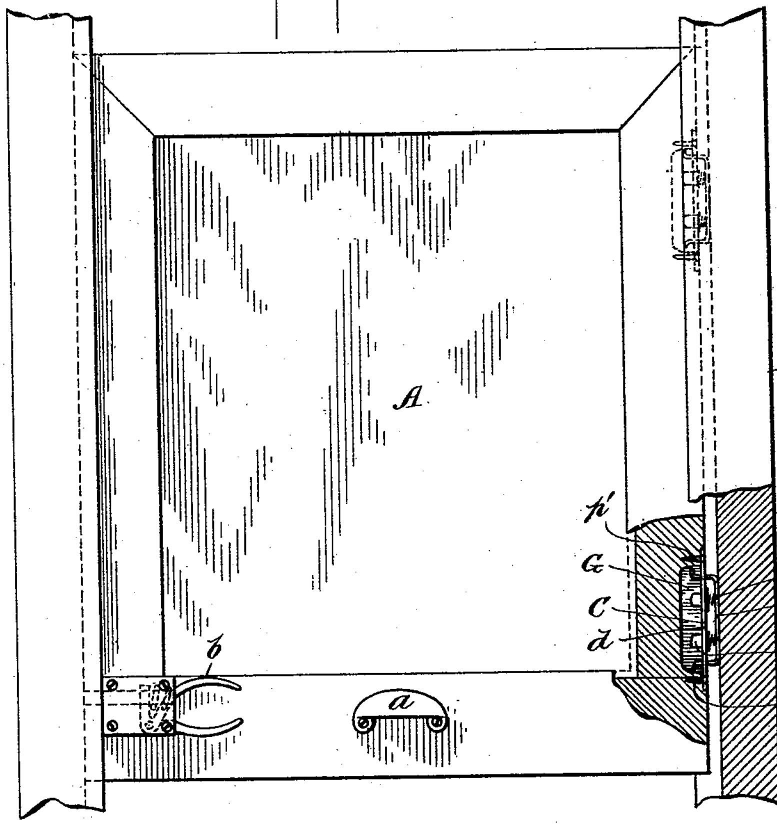


Fig. 2.

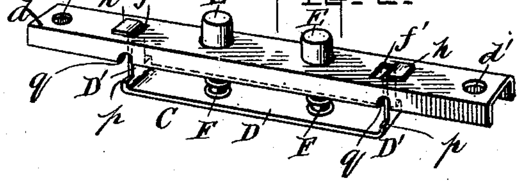


Fig. 3.

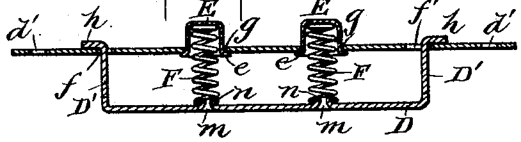
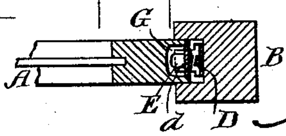


Fig. 4.



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UNITED STATES PATENT OFFICE.

SAMUEL COLLINS, OF PHILADELPHIA, PENNSYLVANIA.

SASH-HOLDER.

SPECIFICATION forming part of Letters Patent No. 453,881, dated June 9, 1891.

Application filed March 17, 1891. Serial No. 385,401. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL COLLINS, formerly a subject of the Queen of Great Britain, but now having legally declared my intention of becoming a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Window-Sash-Holding Devices; 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.

My invention consists in a novel spring-friction-holding metallic device applied between the window-frame and the edge of the sash, the same being applicable to both car-windows and windows of dwellings or other buildings, as will be hereinafter described and specifically claimed.

In the accompanying drawings, Figure 1 is a front elevation of a window frame and a sash, portions of the frame and sash being broken out and sectioned to show my invention more plainly as applied. Fig. 2 is a perspective view of the most approved style of construction to be adopted in carrying out my invention, the device being detached from the window frame and sash. Fig. 3 is a sectional view of my invention detached from the window frame and sash, slightly modified in its construction; and Fig. 4 is a broken horizontal section of a window frame and a sash, as shown in Fig. 1, and of my invention.

In the accompanying drawings, A indicates a car-window sash provided with a lifting-handle *a* and a locking-bolt mechanism *b*, the latter of which may or may not be employed.

C indicates a spring friction holding device. This device consists of a flat metal plate *d*, having screw-holes *d'* through its ends, transverse slots *f f'*, one of which is of greater area than the other, and cylindrical passages *g* midway between the slots, and of an angular metallic strip D, the right-angular ends D' of said strip being narrower than the face of the strip and bent down so as to form retaining-lips, which are about parallel with the strip proper, as indicated at *h*. These right-angular ends are inserted through the slots *f f'* of the plate *d*. The slot *f'*, by being made larger than the slot *f*, admits of this being readily effected. Coinciding with the cylindrical passages *g*, holes *m* are swaged in the strip D, and thereby tubular teats *n* are formed on this strip.

In the cylindrical passages *g* cup-shaped devices E are inserted and retained by lips *e*, formed on the cups by swaging at their open ends. Into these sockets and around the teats *n* spiral springs F are applied, as represented. The strip D moves back and forth in the slots *f f'* against the spiral springs, and the extent of its movement is limited by means of shoulders *p*, formed on the friction holding-strip D by the reduction in width of the angular portions D'. The action of the spiral springs against the strip D produces the necessary force for binding the said strip against the window-frame.

In Fig. 1 the device is shown fastened by means of screws *p'* to the edge of the sash A, and a recess G is cut into said edge of the sash to accommodate the inward movement of the angular ends of the strip D, such movement being necessary in order to introduce the sash with the friction holding device into the groove of the frame B, and thereby compress the springs F sufficiently to cause them to forcibly bind the strip D against the frame B, as illustrated in Fig. 1 of the drawings.

In Fig. 2 the strip *d* is represented as constructed of angle-iron, in which notches *q* are provided to receive the shoulders *p*, this giving strength and stiffness to the strip and making, with the strip D when the device is in position on a window frame and sash, a closed joint against dust and cinders. In all other respects the device is the same as in the other figures.

It will be seen that the lips *e* of cup-like receptacles E for the ends of the springs F and the teats *n* for holding the springs in position are formed in the manufacture of the parts so as to render unnecessary any pins to be used as means for holding the springs in position; also, that the angular-lipped strip D, in conjunction with the strip *d*, can be applied and kept in position without the use of pins or other fastenings, and thus great reduction in cost effected.

Two or more devices similar to the one de-

scribed may be applied at proper distances apart on the frame and sash, as represented in Fig. 1 by full and dotted lines.

I contemplate making the device C of a length sufficient to employ only one, instead of two, on a sash. I may also employ only one spring F and one means for fastening such spring in position; and it might be practicable to employ a bow-spring in lieu of the spiral springs between the strips *d* and D, and in such construction the cups E E might be dispensed with, or a bow-spring and spiral springs combined might be used; but I prefer the spiral springs and the means shown for holding them in position.

My invention affords a cheap and ready substitute for cords and weights and other expensive means heretofore devised for holding up sashes, and it also effectually prevents the rattling of the sash.

What I claim as my invention is—

The combination, with the strip *d*, having slots *f f'*, and flanged cups E, inserted in the cylindrical passages formed in said strip, of the angular-lipped strip D, connected by its lips to the strip *d*, and the springs F, applied upon swaged teats of the strip D and in the cups, substantially as described.

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

SAMUEL COLLINS.

Witnesses:

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