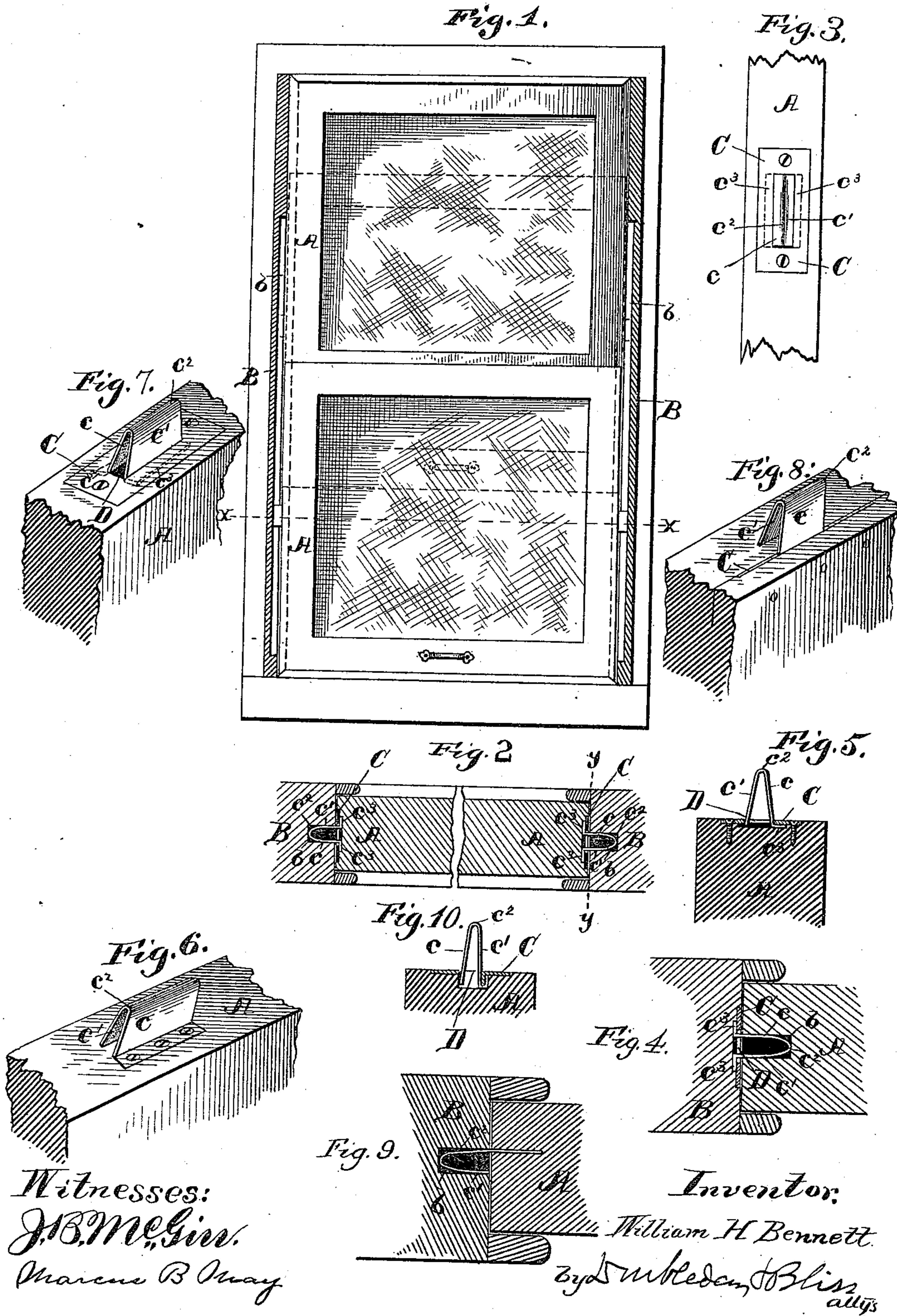


(No Model.)

W. H. BENNETT.
SASH HOLDER.

No. 428,547.

Patented May 20, 1890.



UNITED STATES PATENT OFFICE.

WILLIAM H. BENNETT, OF CHICAGO, ILLINOIS.

SASH-HOLDER.

SPECIFICATION forming part of Letters Patent No. 428,547, dated May 20, 1890.

Application filed August 1, 1889. Serial No. 319,405. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. BENNETT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Fasteners for Sashes, Screens, &c., of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to improvements in devices for fastening such sliding objects as doors, window-sash, screens, lids, &c.

It consists in a peculiarly-constructed fastener interposed between the sliding or movable part and the adjacent stationary part, whereby a frictional grip is provided, such that while the sliding part shall be held at any desired point, yet it can be readily moved from place to place whenever desirable.

20 Figure 1 is a face view of a window to the sash of which my invention is applied. Fig. 2 is a cross-section on the line $x x$, Fig. 1. Fig. 3 is a vertical section on the line $y y$, Fig. 2. Fig. 4 shows an inversion of the parts, the elastic fastener being secured to the stationary part and the guiding-groove being formed in the movable part. Figs. 5 to 10 illustrate modified forms of a fastener.

30 In the drawings I have shown more or less conventionally the several parts of an ordinary window as a means of illustrating the manner of applying my invention; but it will be understood that devices containing the characteristic features thereof can be employed in any one of numerous places, it being adapted for use wherever one object is arranged to slide in or upon another which it is desired to fasten at any of numerous places relatively thereto.

40 A A in the drawings represent, respectively, the lower and upper sashes of the window-frame, B indicating the side pieces of the casing or frame immediately adjacent to the sash. In each of the latter a groove b is formed of suitable length.

45 Upon the opposing face of the sliding sash there is secured the elastic fastener which fits in the said groove b , and which, by reason of the peculiar disposition of the spring-plates which it comprises, is always in frictional engagement with the walls of the said groove. The fastener has a plate C for securing it in

place, and two opposing elastic or spring plates $c c'$. In some cases the plate C for fastening the whole in place is made integral with the spring-plates. In others it is made separately therefrom. 55

In Figs. 2, 3, and 4 a form is shown in which the plate C is made with an elongated aperture D, and the elastic part is made of a plate 60 of sheet-brass bent to provide the frictional part $c c'$ and the lips $c^3 c^3$. The latter lie under the plate C, the wood of the sliding bar A being recessed to receive them. The width of the aperture D approximates that of the groove b , so that the plate $c c'$ can, under the influence of the elasticity, separate far enough to insure a frictional grip upon the walls of the groove. 65

The manner of connecting the parts and the mode in which the devices operate when in use will be readily understood. The window-sash (or other sliding objects) can be moved to any desired point, and after being carried there will remain in position, the grip of the part $c c'$ upon the walls of the groove holding it steady. The tension of the elastic parts can be readily varied. 70

In Fig. 5 I have shown a device embodying my invention, in which one of the lips c^3 is omitted. 75

In Fig. 8 the plate C and the spring part $c' c^2$ are integral, the latter being formed by slitting a spring-metal plate and bending over the part c' . Here, too, the spring-plates lie 80 opposite to each other.

Fig. 10 shows a form in which the part c' of the spring-holder is bent to provide a lip adapted to engage with an inwardly-turned lip formed on the stationary plate C. 85

In each of the above constructions it will be seen that little metal is employed, and that the fastener can be manufactured at a merely nominal expense. It will also be noticed that the above articles are all alike, in that each 90 possesses two opposite spring-plates which mutually exert an elasticity—that is to say, of which each not only of itself tends to bear against one of the walls of the grooves in the opposing part, but also assists its companion 100 in effecting a strong engagement.

I am aware of the fact that sash-fasteners have been heretofore used, each having a spring-plate of some form; but I believe my-

self to be the first to have used a fastener of the sort herein shown containing opposing spring-plates so disposed as to exert elasticity on lines lying in a plane parallel to the face of the guiding-groove and to press directly opposite to each other across the said groove.

I am also aware that use has been heretofore made of a bow-shaped spring or metal bar interposed between the sash and its frame in conjunction with a coiled spring connecting the ends of the bow-shaped part; but the construction, arrangement, and mode of operation in my case differ from those incident to the devices last referred to. In the latter a comparatively long portion of the convex surface of the spring at its central part is depended on, and the device as a whole is larger and more expensive than is the one herein shown. In my holder there is present merely a short piece of spring sheet metal, so arranged that both sides of the V-shaped or U-shaped part near its ends engage directly with the walls of the groove in which it is fitted, and by reason of this arrangement of the engaging parts of the holder it can be made of small pieces of metal and at a merely nominal cost.

Heretofore pivoted springs have been attached to the sides of a sash, and I do not claim such devices as of my invention. In my case the sheet of metal which constitutes the spring not only has parts bent, as aforesaid, into V shape or U shape to constitute the gripper, but also has integral therewith and as a part of said plate means for engaging with a suitable holder on the sash or the frame, whichever has the spring secured thereto; hence both the spring and the part carried by it for holding it in place are made at one and the same time, and it can be readily attached or detached. The ends of the V-shaped or U-shaped spring-plate are adjacent to the part which carries it, and the rounded or bent edge at c^2 projects outwardly directly from said carrying part and into the groove, the result being that there is no smooth surface provided adapted to slip readily with the walls of the groove without cutting or positively engaging with them by accident.

If the path of travel of the sliding part is long or if said part is heavy, two or more of the fasteners can be used, and in such case the spring-plates $c c'$ can be placed at whatever points are convenient. They may be held in place by a single elongated base-plate C with a series of perforations D, or formed integral with the several spring parts.

Although in the claims I mention a sash and its casing or support, I do not limit myself to the use of the devices herein described in connection with the said parts of a window, for it will be seen that they can be

as well applied to sliding screens, doors, and drawers, and, in fact, to any of numerous analogous objects. It will also be seen that the fastener can be attached to either the slide (door, sash, screen) or to the relatively stationary supports therefor. In Fig. 4 I have shown the groove as being formed in the slide and the fastener as being connected to the stationary support.

What I claim is—

1. The combination, with a sash and a relatively stationary casing or support, one of said parts being provided with a groove, of the herein-described elastic fastener secured to the other of said parts, it having the U-shaped or V-shaped spring-metal plate $c c'$, with the ends inserted into or adjacent to the part to which the fastener is attached, and the rounded or bent part c^2 , projecting outward therefrom into the groove, substantially as and for the purposes set forth.
2. The combination, with a sash and a relatively stationary casing or support therefor, one of said parts having a groove, of the herein-described elastic fastener secured to the other of said parts and formed of a spring-plate bent into V shape or U shape, and having integral therewith a lip, as at c^3 , for securing to the part which carries it, substantially as set forth.
3. The combination, with the sash and the relatively stationary casing or support therefor, one of said parts having a groove, of the elastic fastener secured to one of said supports, comprising a plate, as at C, rigidly secured in place, and the U-shaped or V-shaped bent spring-plate $c c'$, connected to the rigidly-fastened part and having its ends adjacent to the said rigidly-fastened parts, and the rounded or bent part c^2 , projecting outward into the said groove, substantially as set forth.
4. The combination, with a sash and a relatively stationary casing or support therefor, one of said parts having a groove, of an elastic fastener secured to the other of said parts, it comprising a plate, as at C, secured to the last said part and having an aperture therein, as at D, and a V-shaped or U-shaped elastic plate $c c'$, having an end inserted into said aperture D, and having the outer faces adjacent to said ends adapted to directly engage with the walls of said groove, substantially as set forth.

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

WILLIAM H. BENNETT.

Witnesses:

H. E. BOLTON,
W. H. HOLWAY.