

(No Model.)

I. W. BROWN.  
SASH HOLDER.

No. 596,958.

Patented Jan. 4, 1898.

Fig. 1.

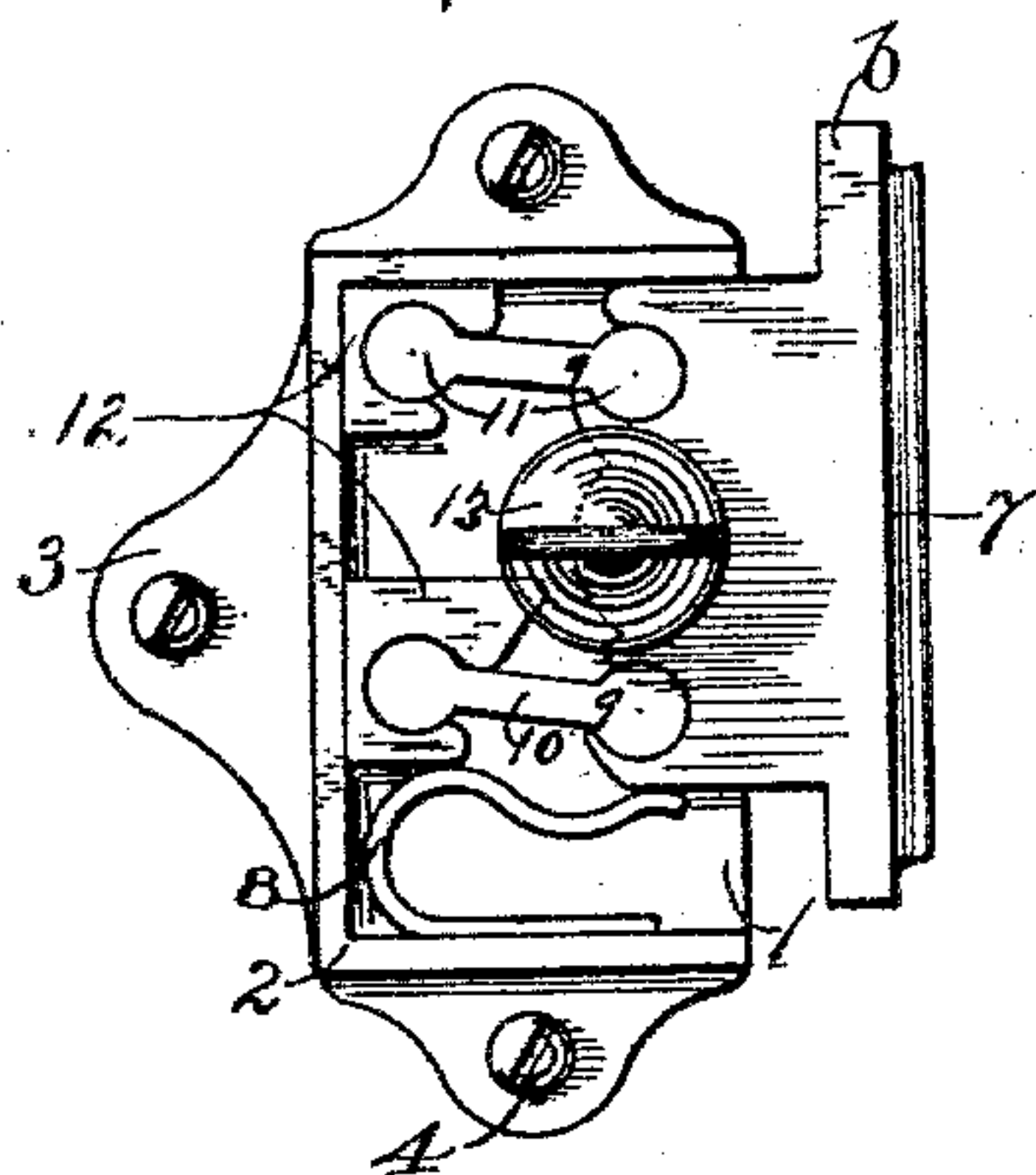


Fig. 2.

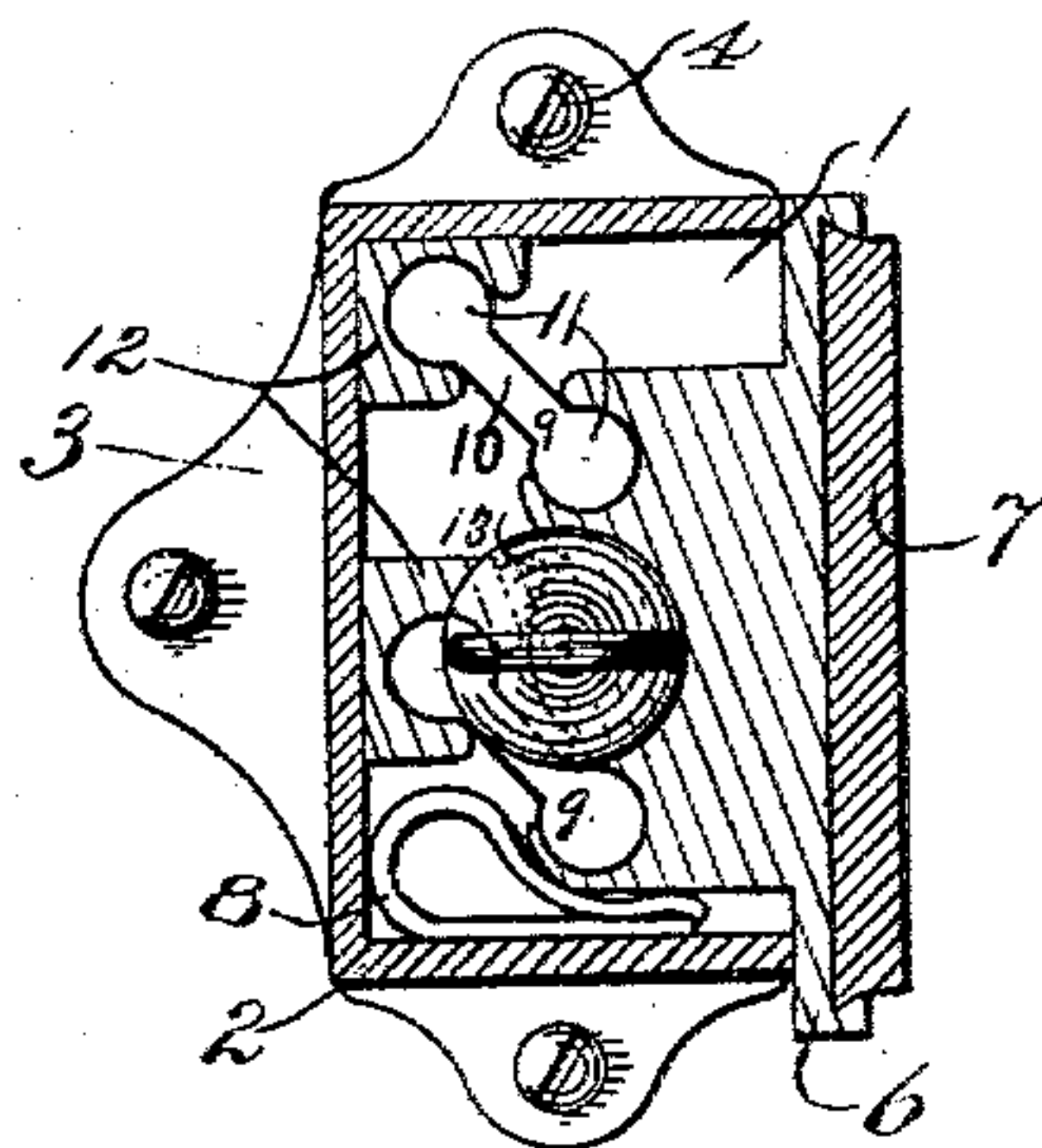


Fig. 5.

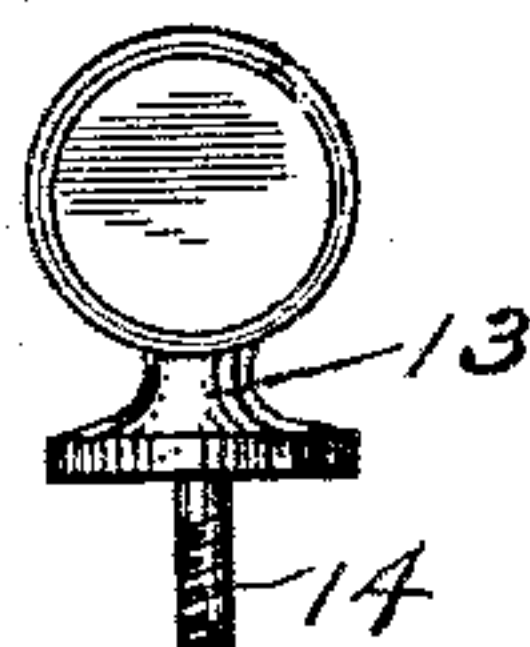


Fig. 3.

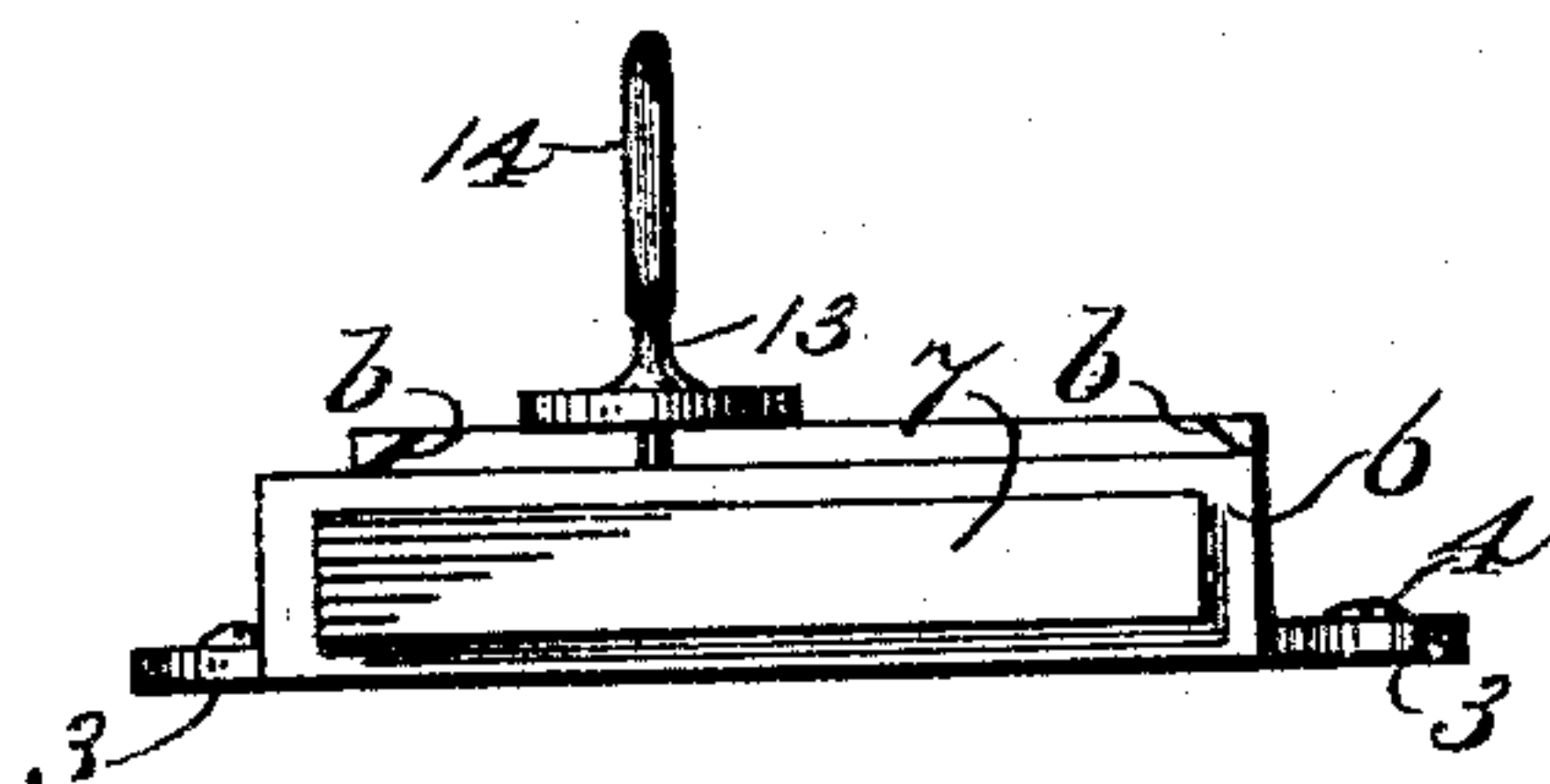
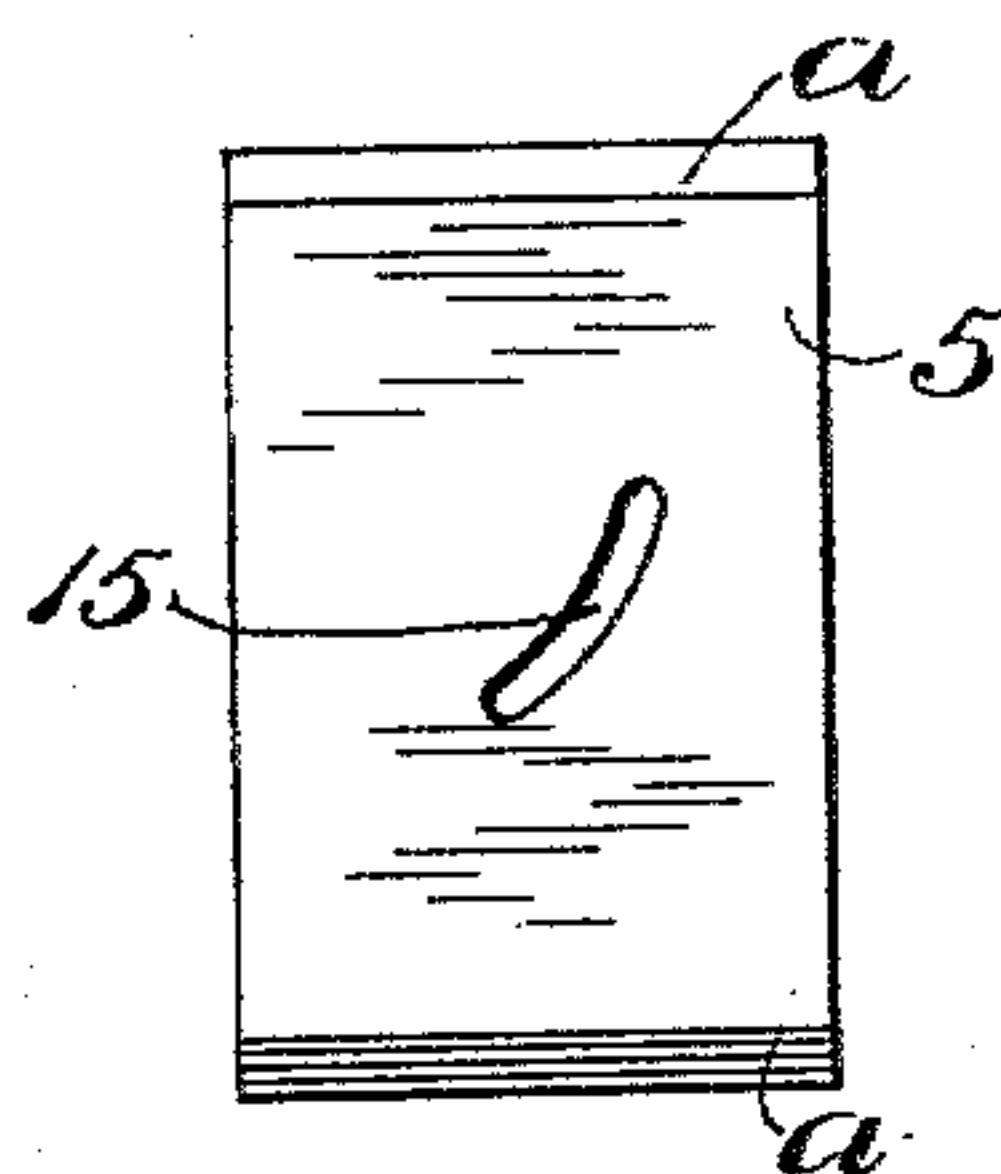


Fig. 4.



WITNESSES

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INVENTOR

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# UNITED STATES PATENT OFFICE.

IRA W. BROWN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO ROBERT LATTA, OF BROOKLYN, NEW YORK.

## SASH-HOLDER.

SPECIFICATION forming part of Letters Patent No. 596,958, dated January 4, 1898.

Application filed September 1, 1897. Serial No. 650,222. (No model.)

*To all whom it may concern:*

Be it known that I, IRA W. BROWN, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Window-Sash Supporters; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to window-sash supporters for vertically-movable sashes; and it has reference particularly to that class of such devices which apply the force of adhesion between the sash and one of the side pieces of the window-frame and between a portion of said supporter and the other side piece of said window-frame to sustain the sash at any desired position.

The invention will be more particularly described with reference to the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view of my sash-supporter, showing its contact or sustaining element proper in operative position. Fig. 2 is a similar view of my sash-supporter, showing the sustaining element in its retracted position. Fig. 3 is an elevation of my device, showing the face thereof nearest the side piece of the window-frame. Fig. 4 shows a detachable plate which serves to conceal, protect, and retain in position the internal mechanism of my sash-supporter; and Fig. 5 is a view in elevation of the operating-knob for the movable parts of the device.

In said drawings I have shown in Figs. 1 to 3 a rectangular case which incloses the working parts of the supporter and which consists of a base-plate 1 and three side walls 2, integrally formed on one of the faces of said base-plate, said base-plate being provided with integral laterally-projecting securing-ears 3, situated on the three walled sides of the case and having perforations for screws or pins 4.

A cover or top plate 5 is provided for the case and is adapted to be removably secured thereto by a dovetail joint formed by bevel-

ing the shorter edges of the plate, as at *a*, and forming corresponding grooves *b* in the inner surfaces of the shorter side walls of the case. This plate is adapted to be moved into position from the open face of the case, and since said case is normally secured to the sash in close proximity to the side piece of the window-frame it cannot be removed without first removing the entire device from the sash.

A block 6, provided with a rubber shoe 7 on its exposed or contact face, is arranged to reciprocate in and out of the case through the open side thereof in an oblique direction, its movement in either direction being limited by the shorter side walls of the case, against which the shorter sides of the block are adapted to come into contact. Said block is hinged to said case by means of a pair of parallel toggle-bars 9. The said toggle-bars are flat, are of approximately the thickness of the block, and each consists of a shank 10, having at each end thereof a substantially circular head 11. These heads are adapted to closely fit into sockets provided therefor in the inner face of the block and in projections 12 integrally formed on the interior face of the base-plate of the case. The movable block is thus so mounted with respect to the case that in any position thereof its contact-face is parallel to the open side of the case, and consequently it is also always parallel to the side of the window-frame with which it is adapted to come into contact, it being of course assumed that the device has been properly placed in position on the sash-stile.

The block is adapted to be normally held in its outward or operative position by a spring 8, disposed between the lower end of said block and the lower wall of the case. It will be obvious that said spring plays no prominent part in actually sustaining the sash, since its only function is merely to normally hold the block in such a position that upon contact of its rubber shoe with the side piece of the frame of the window the weight of said sash may act to buckle the toggle-bars the more to effect the desired increase of their lateral pressure and a consequent increase in adhesion between the opposite stile of the sash and the adjacent side piece of the window-frame, as well as between said block and



the side piece of the window-frame with which it comes into contact.

The rubber shoe 7 is firmly held in position by setting it into a cavity in the face of the block, the entrance to said cavity being somewhat contracted and the inner face of the rubber shoe being slightly larger than the entrance to said cavity, so that after being forced into position the shoe will be retained the more effectively on account of the expansion of that portion of the same which is thus embedded in the block. The shoe may be otherwise secured to the block, however, and I do not therefore wish to be limited to this arrangement which I have just described.

A knob 13, having a threaded stem 14, is adapted to be screwed into the block 6 between the heads of the connecting-rods, so as to serve as an operative element for the block. Its stem projects through a slot 15 in the plate, said slot being arranged obliquely, so as to accommodate the movement of the knob.

It will be obvious that by placing the thumb above the knob and pushing downward thereon the block will be moved obliquely to disengage the rubber shoe from the face of the side piece of the window-frame against which said rubber shoe impinges. While the block is thus retracted the sash is free to be raised, and when it has been lifted to the desired height the release of the block will permit its spring to throw it into position with its rubber shoe in contact with the face of the adjacent side piece, in which position the weight of the sash will act to produce the desired lateral pressure of the toggle-bars.

The movable parts fit snugly between the base-plate 1 and the removable plate or cover 5, and it is obvious that to remove them the device must be detached and the cover disengaged from the case, as hereinbefore mentioned.

My sash-supporter is particularly adapted to car-window sashes, but it may as well be applied to windows of other patterns, if desired.

Having thus fully described my invention,

what I claim, and desire to secure by Letters Patent of the United States, is—

1. A supporting device for a vertically-movable window-sash consisting of a case adapted to be secured to one of the stiles of said sash, a block projecting out of said case, movable in the arc of a circle to and from, and downwardly out of contact with, the adjacent side piece of the window-frame and provided with a rubber shoe on its exposed or contact face, a pair of coacting toggle-bars connecting said case with each end of the block and having circular heads at their ends each arranged in a corresponding socket in the case and in the inner face of the block, a spring disposed between a wall of the case and said block and an operating-knob secured to said block, substantially as described.

2. A supporting device for a vertically-movable window-sash consisting of a rectangular case adapted to be secured to one of the stiles of said sash, a removable block projecting from one side of said case, movable in and out of the same in the arc of a circle to and from, and downwardly out of contact with, the adjacent side piece of the window-frame and provided with a rubber shoe on its exposed or contact face, a pair of removable coacting toggle-bars connecting said case and the block and having circular heads at their ends each arranged in a corresponding socket in the case and in the inner face of the block, a removable spring disposed between the lower wall of the case and the block, a slotted removable retaining-cover for the movable parts of the device, said cover being movable in its plane in the direction of the side piece of the window-frame, and an operating-knob for the block connected thereto through said slot in the plate, substantially as described.

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

IRA W. BROWN.

Witnesses:

THOMAS O'KEEFE,  
WM. F. FITZPATRICK.