

No. 639,058.

Patented Dec. 12, 1899.

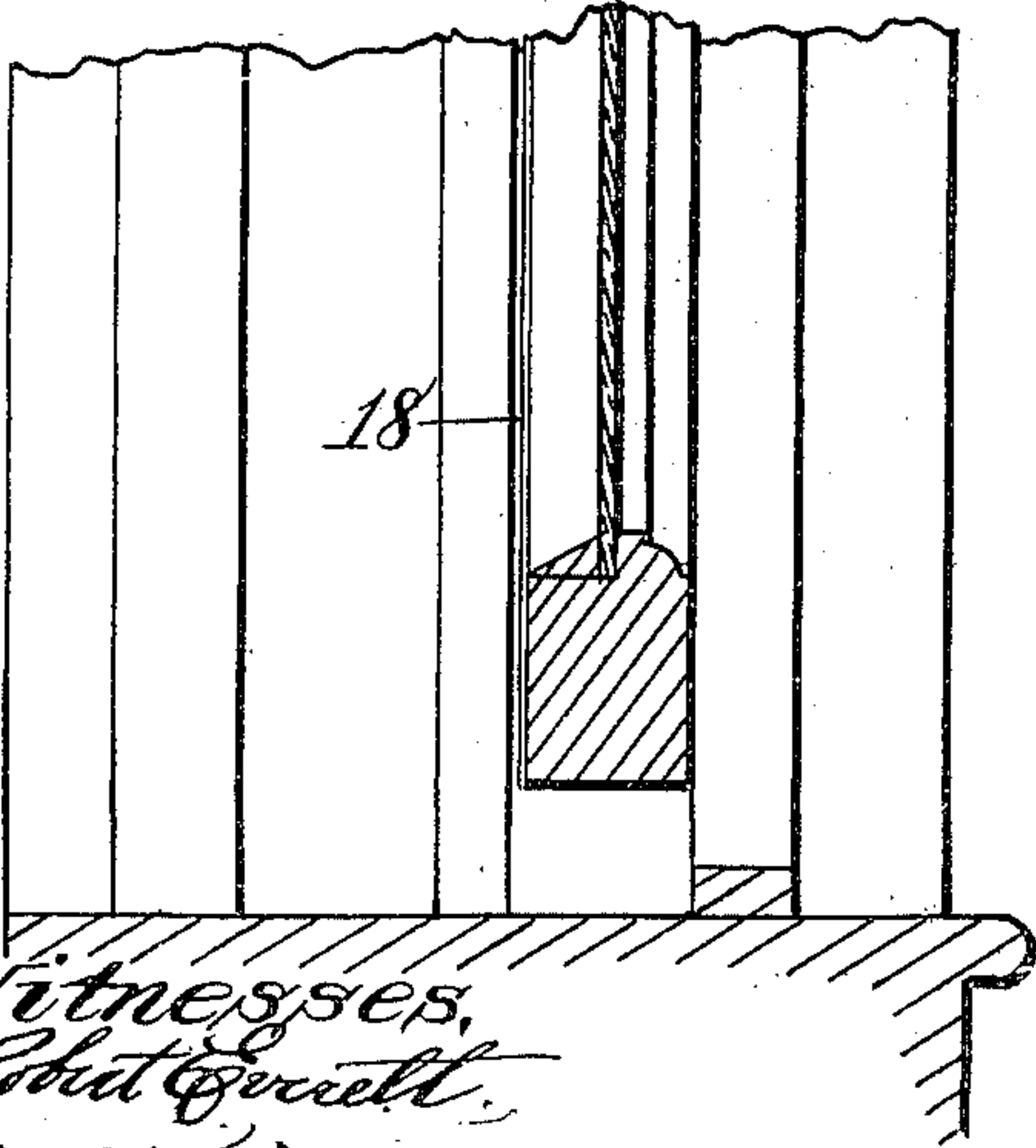
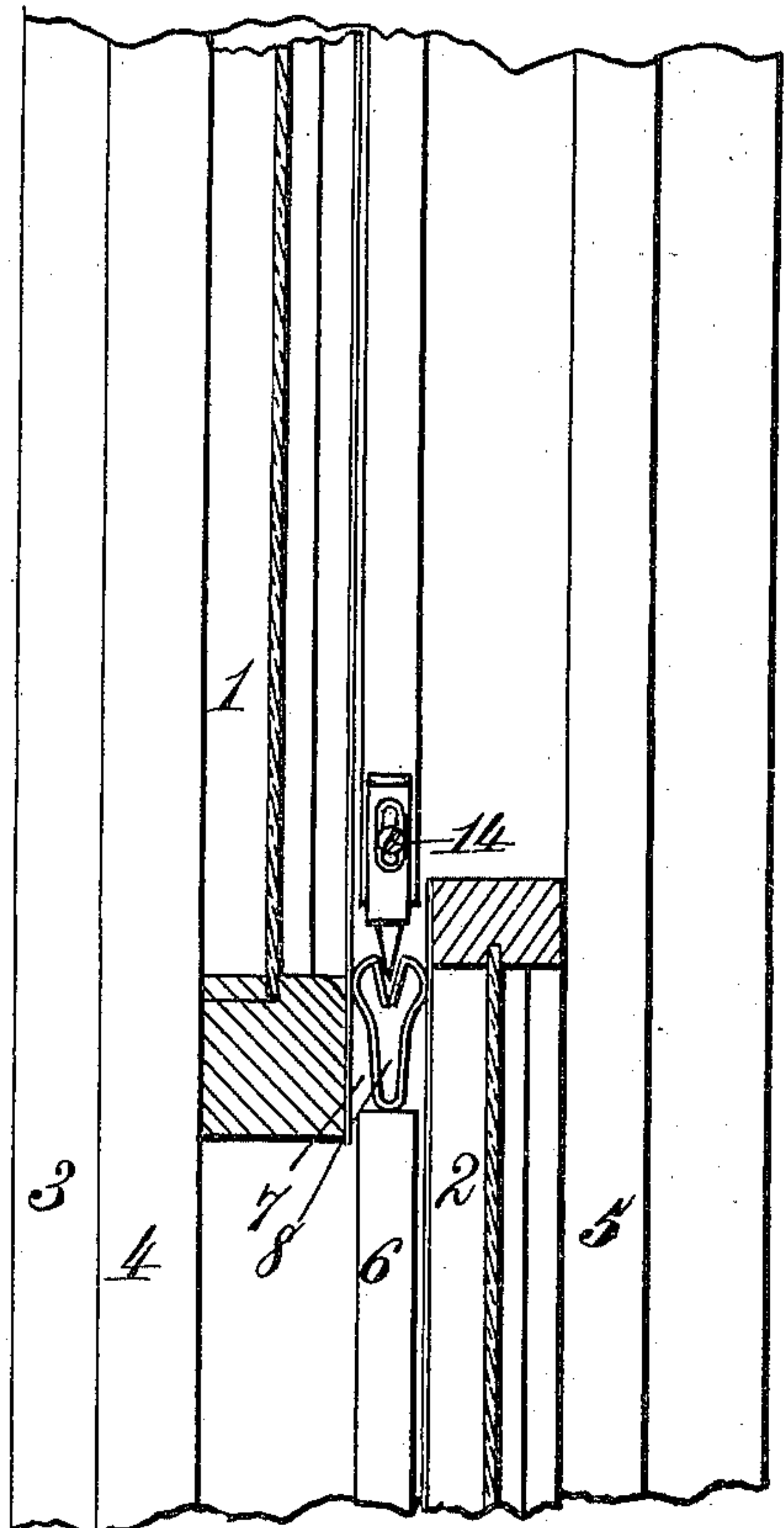
J. L. KIMBALL.

SASH HOLDER.

(Application filed Apr. 8, 1899.)

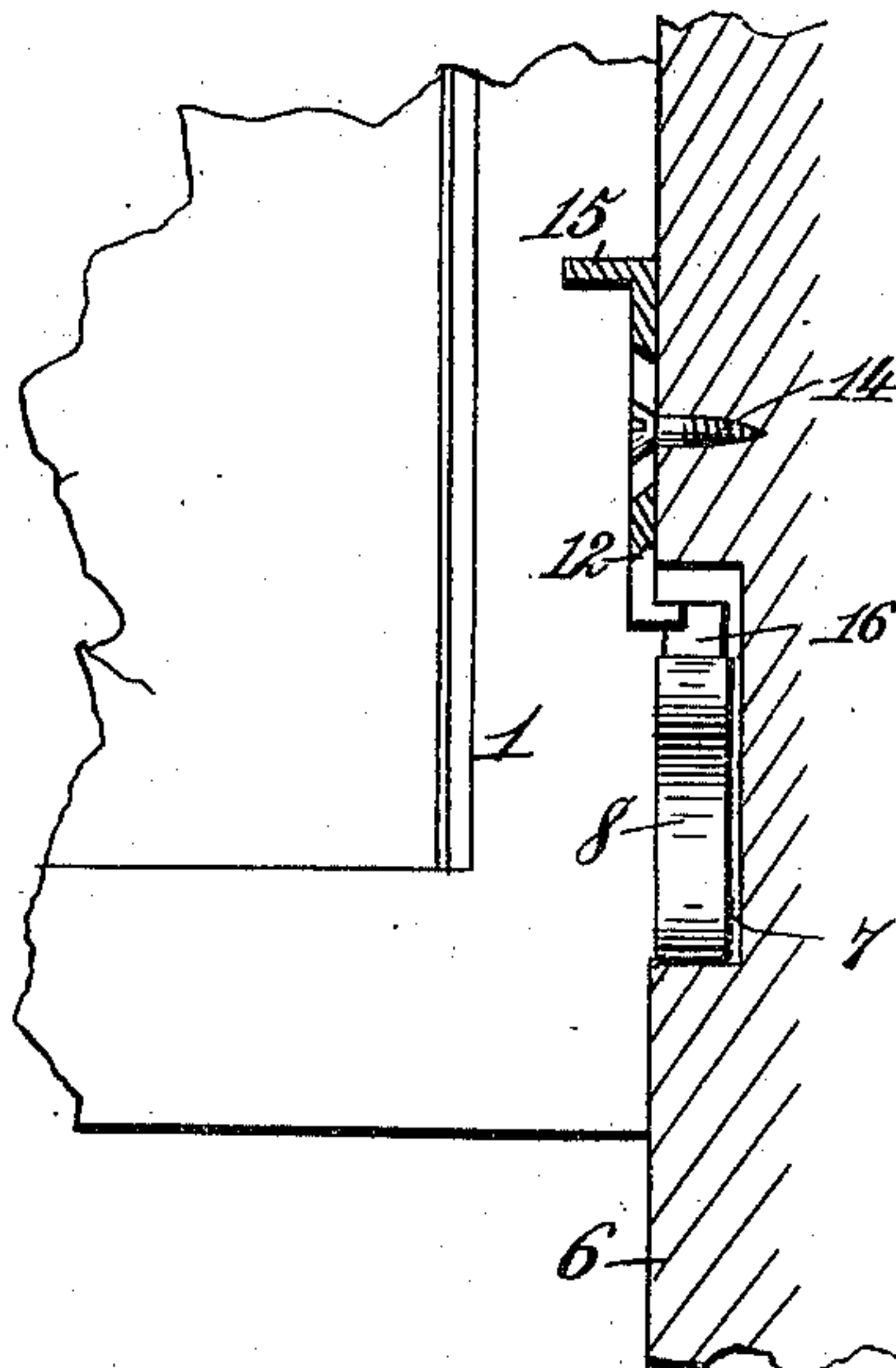
(No Model.)

*Fig. 1.*

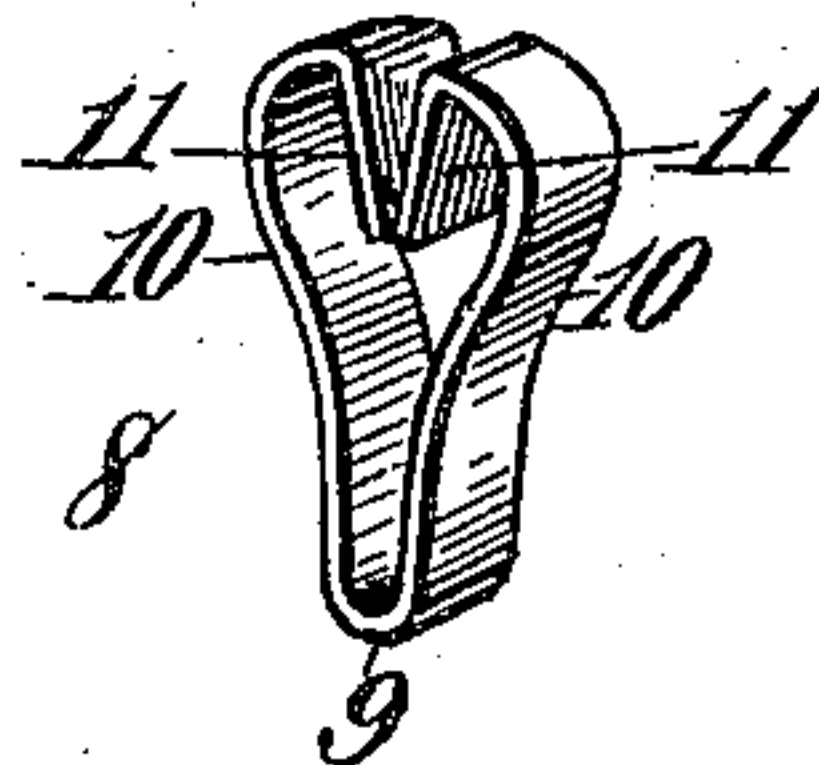
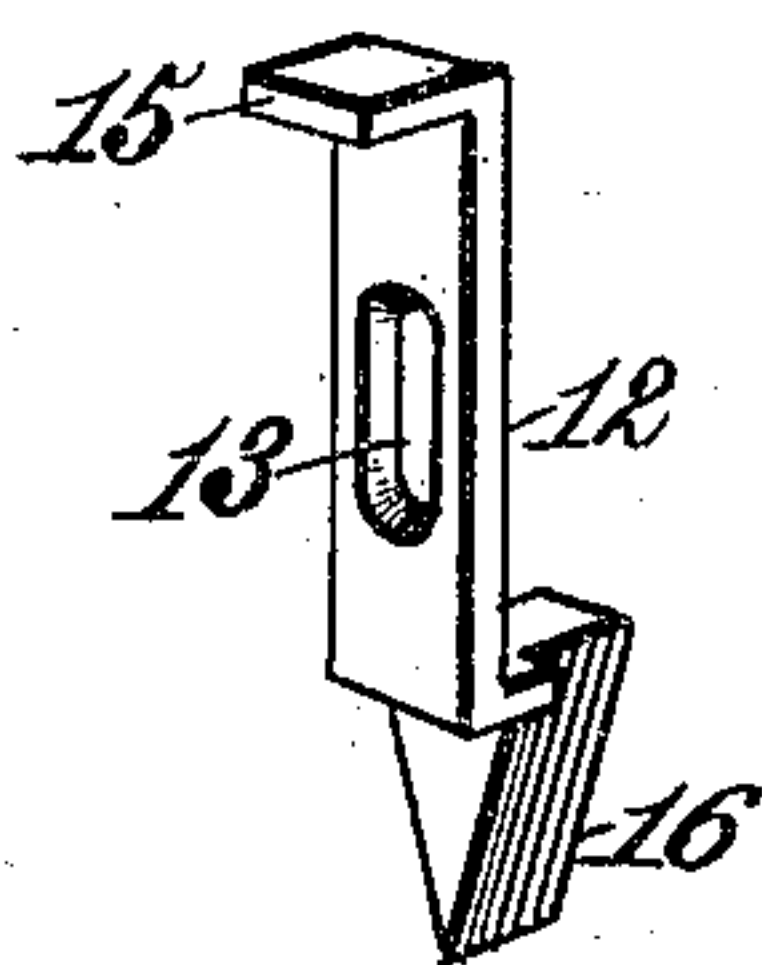


Witnesses,  
*Robert Everett*  
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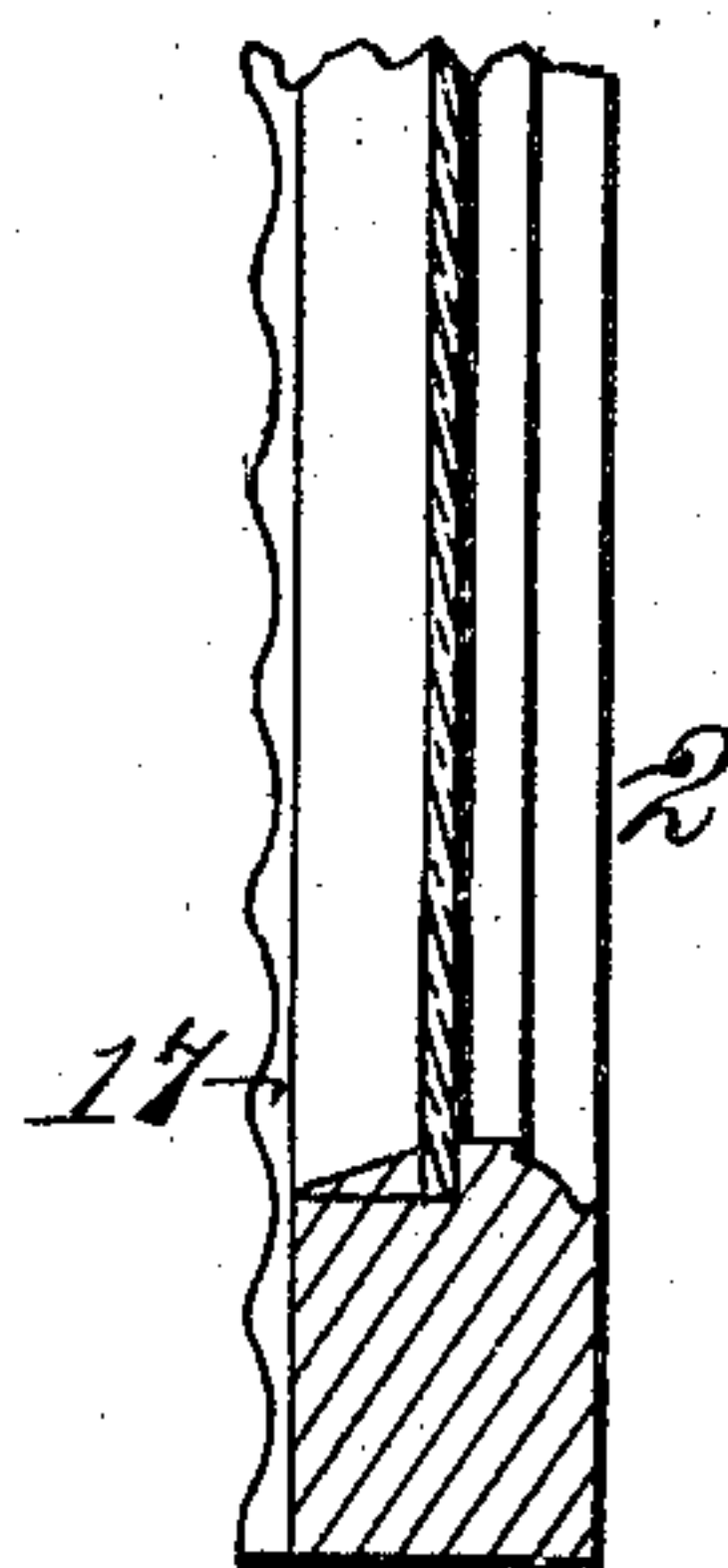
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



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*Att'y.*



# UNITED STATES PATENT OFFICE.

JAMES L. KIMBALL, OF MOUNTAIN IRON, MINNESOTA.

## SASH-HOLDER.

SPECIFICATION forming part of Letters Patent No. 639,058, dated December 12, 1899.

Application filed April 8, 1899. Serial No. 712,281. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES L. KIMBALL, a citizen of the United States, residing at Mountain Iron, in the county of St. Louis and State of Minnesota, have invented new and useful Improvements in Sash-Holders, of which the following is a specification.

My invention relates to sash-holders, the object of the same being to provide a device adapted to be applied to any window by means of which the sashes may be readily raised or lowered and held in the positions to which they may be moved by friction, thereby dispensing with the use of the ordinary balance-weights, cords, and pulleys, which are constantly becoming worn out and otherwise getting out of order.

The invention consists of a spring frictional device interposed between the side rails of the two sashes in a socket or recess formed in the parting-bead and engaging the opposed faces of said rails; and it also consists in means for adjusting the active faces of said frictional device with reference to the sashes, so that wear upon the sashes may be compensated for and said sashes may be locked in any positions to which they may be moved.

The invention also consists in certain details of construction and combinations of parts, which will be hereinafter more fully described and claimed.

In the drawings forming part of this specification, Figure 1 is a vertical section taken through the two sashes and showing the inner surface of the window-frame in elevation. Fig. 2 is a section taken at right angles to Fig. 1, and Fig. 3 is a detail of the spring retaining device and the adjusting mechanism therefor. Fig. 4 is a detail sectional view showing a corrugated plate which may be used on one of the sashes.

Like reference-numerals indicate like parts in the different views.

The upper sash 1, the lower sash 2, and the window-frame 3 may all be of any suitable form or construction, the said window-frame being provided with outer stops 4, inner stops 5, and parting-beads 6, forming ways in which the sashes 1 and 2 are movable up and down. At a point between the upper edge of the lower sash and the lower edge of the upper sash the parting-bead 6 is cut away, forming

a socket or recess 7, in which is located the frictional retaining device 8. The said frictional retaining device is made from a strip of spring metal bent at its medial point, forming a rounded lower end 9, which rests upon the shoulder formed in the parting-bead 6 at the lower end of the recess 7. From the rounded lower end 9 the spring-metal strip is bent inwardly and then upwardly and outwardly, forming diverging arms 10 10, which are bent inwardly at their upper ends, as clearly shown, forming at their outermost points engaging portions which bear against the opposed surfaces of the side rails of the sashes 1 and 2. From the upper ends of the arms 10 10 the material of which the spring retaining device is made is bent downwardly, forming converging or V-shaped arms 11 11, which terminate at a point between the diverging side arms 10 and lie in contact with each other at their meeting-points. By the construction described it will be observed that the spring retaining device exerts an outward pressure upon the opposing surfaces of the sashes 1 and 2 by reason of the peculiar formation of the bend of the material which produces the diverging arms 10 10 and by the engagement of the terminals of the arms 11 11. This outward pressure will be sufficient to retain the sashes 1 and 2 in any position to which they may be moved, but at the same time will permit of the sliding movement of said sashes in their ways when sufficient power is applied thereto, it being noted that the engaging points of the arms 10 10 with the sashes 1 and 2 are extremely narrow.

After a spring has been in use for some time it naturally loses some of its resiliency, and from constant use of a spring retaining device similar to that above described, in connection with a pair of sliding sashes which rub against the same, wear upon said sashes will take place. In order to compensate, therefore, for the variations in the pressure exerted by the spring-arms 10 on the sashes 1 and 2, I have provided an adjusting device which is adapted to throw the arms 10 10 outwardly to a greater or less degree. The said adjusting device, as herein shown, consists of a sliding block, bar, or plate 12, mounted in suitable ways above the recess 7 in the parting-bead 6, provided with an elongated slot 13, which



permits of its longitudinal movement, but limits the extent thereof, through which slot passes a headed pin or bolt 14, which prevents the separation of said plate or bar 12 from the window-frame. The upper end of the plate or bar 12 is provided with an outwardly-extending flange 15, constituting a handle, and the lower end thereof is provided with a tapering or wedge-shaped extension 16, constituting a spreader. It will be observed that if the plate or bar 12 be moved downwardly by hand the spreader 16 thereon will enter the V-shaped space at the upper end of the spring retaining device 8 and engage the converging arms 11 11 thereon. This action will serve to throw outwardly the arms 10 10 and cause the same to bind more closely upon the side rails of the sashes 1 and 2. The degree of adjustment to compensate for wear and the like can be readily determined by experiment. If it be desired, however, to lock the sashes 1 and 2 in fixed relation to each other, all that is necessary to be done is to force the plate or bar 12 downwardly, so as to jamb the arms 10 10 into extremely close contact with the sashes 1 and 2. When in this position, it will be extremely difficult, if not impossible, to either raise or lower the sashes.

From the foregoing description it will be noted that my improved retaining device can be applied to any window now in use and that by forming the recess 7 in the parting-bead 6 and locating the retaining device therein the said retaining device will be completely protected and covered at all times by the sashes 1 and 2.

It will be understood, of course, that my invention is applicable to use upon windows of any kind. When used upon car-windows, I find it desirable to secure to the side rails of the sashes corrugated plates 17, in the depressions of which the engaging portions of the arms 10 may seat themselves for the purpose of preventing slipping. Upon the sashes of a window in a dwelling-house ordinary flat wear-plates 18 may be employed.

Having now described the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with the upper and lower sashes of a window, of means for holding said sashes in any position to which they may be moved, consisting of a spring retaining device interposed between said sashes having outwardly-spring-pressed arms adapted to engage the opposing surfaces of said sashes, and inwardly-extending, converging arms which lie in contact with each other at one point, as and for the purpose set forth.

2. The combination with the upper and lower sashes of a window, of a retaining device for said sashes, made of a strip of spring metal bent at its medial point forming a rounded lower end, extended upwardly and outwardly from said rounded lower end forming diverging arms having rounded engaging portions thereon adapted to bear against the opposing faces of said sashes, and bent downwardly and inwardly from the upper ends of said arms forming converging arms which lie in contact with each other at one point.

3. The combination with a window-frame and upper and lower sashes movable therein, the parting-bead of said frame being cut away or recessed at a point opposite the upper rail of the lower sash and the lower rail of the upper sash, of a retaining device for said sashes located within said recess and provided with engaging portions adapted to bear against the opposing faces of said sashes.

4. The combination with the upper and lower sashes of a window, of a retaining device interposed between said sashes, comprising outwardly-spring-pressed engaging portions adapted to bear against the opposing faces of said sashes, and means for adjusting said engaging portions so as to regulate the degree of pressure exerted thereby upon the sashes.

5. The combination with the upper and lower sashes of a window, of a retaining device interposed between said sashes, and comprising spring engaging portions adapted to bear against the opposing faces of said sashes, and a spreader for said engaging portions, as and for the purpose set forth.

6. The combination with the upper and lower sashes of a window, of a retaining device therefor interposed between said sashes and comprising outwardly-spring-pressed arms, and a wedge-shaped spreader for said arms, as and for the purpose set forth.

7. The combination with the upper and lower sashes of a window, of a retaining device therefor interposed between said sashes and comprising a pair of outwardly-spring-pressed arms, and a longitudinally-movable adjusting device having a wedge-shaped spreader thereon adapted to be inserted between said arms, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JAMES L. KIMBALL.

Witnesses:

C. B. GILBERT,

A. T. CONNOLLY.