

No. 643,629.

Patented Feb. 20, 1900.

F. M. BURROWES.  
SHADE HOLDING DEVICE.

(Application filed June 9, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

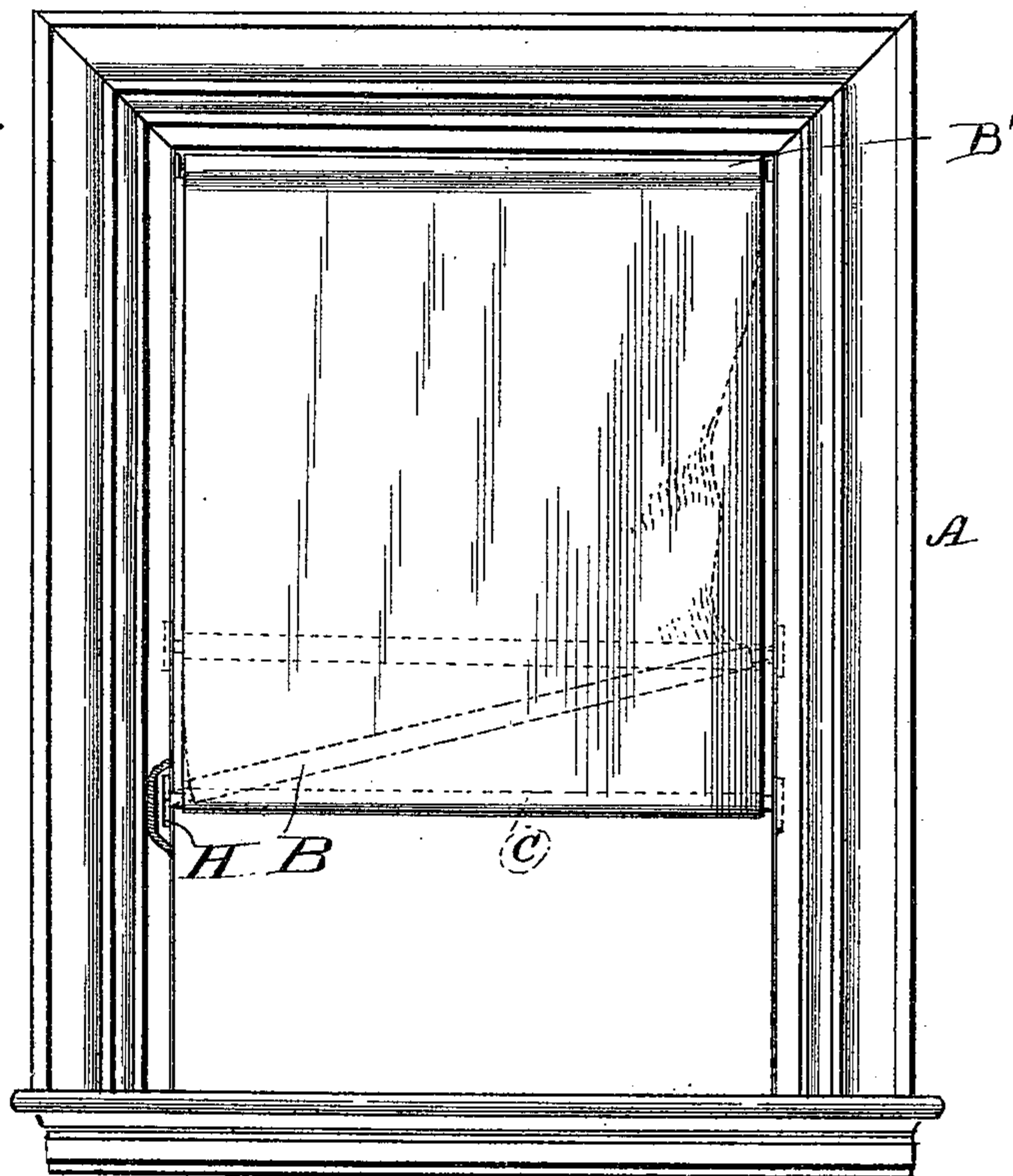


Fig. 3.

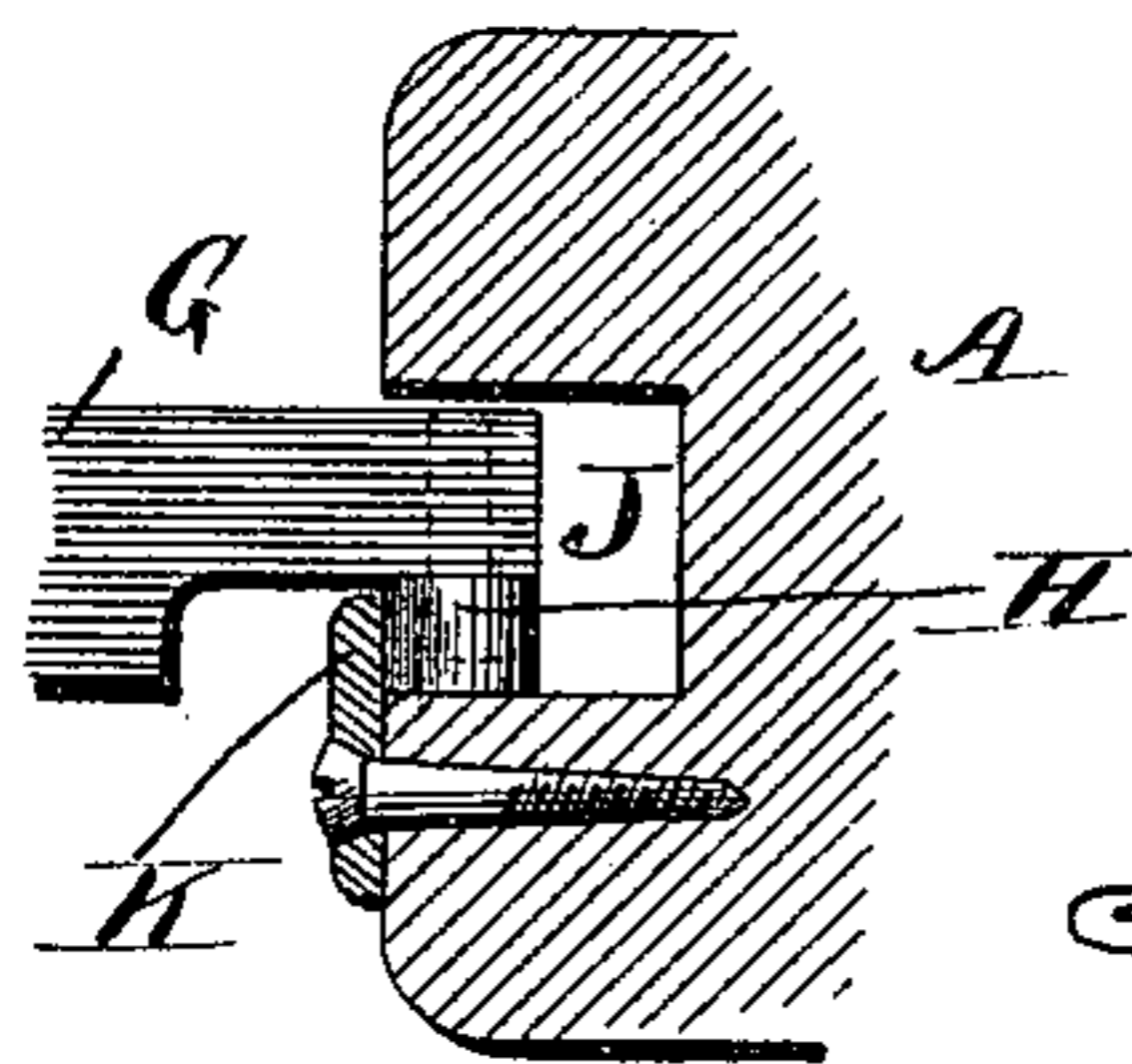


Fig. 4.

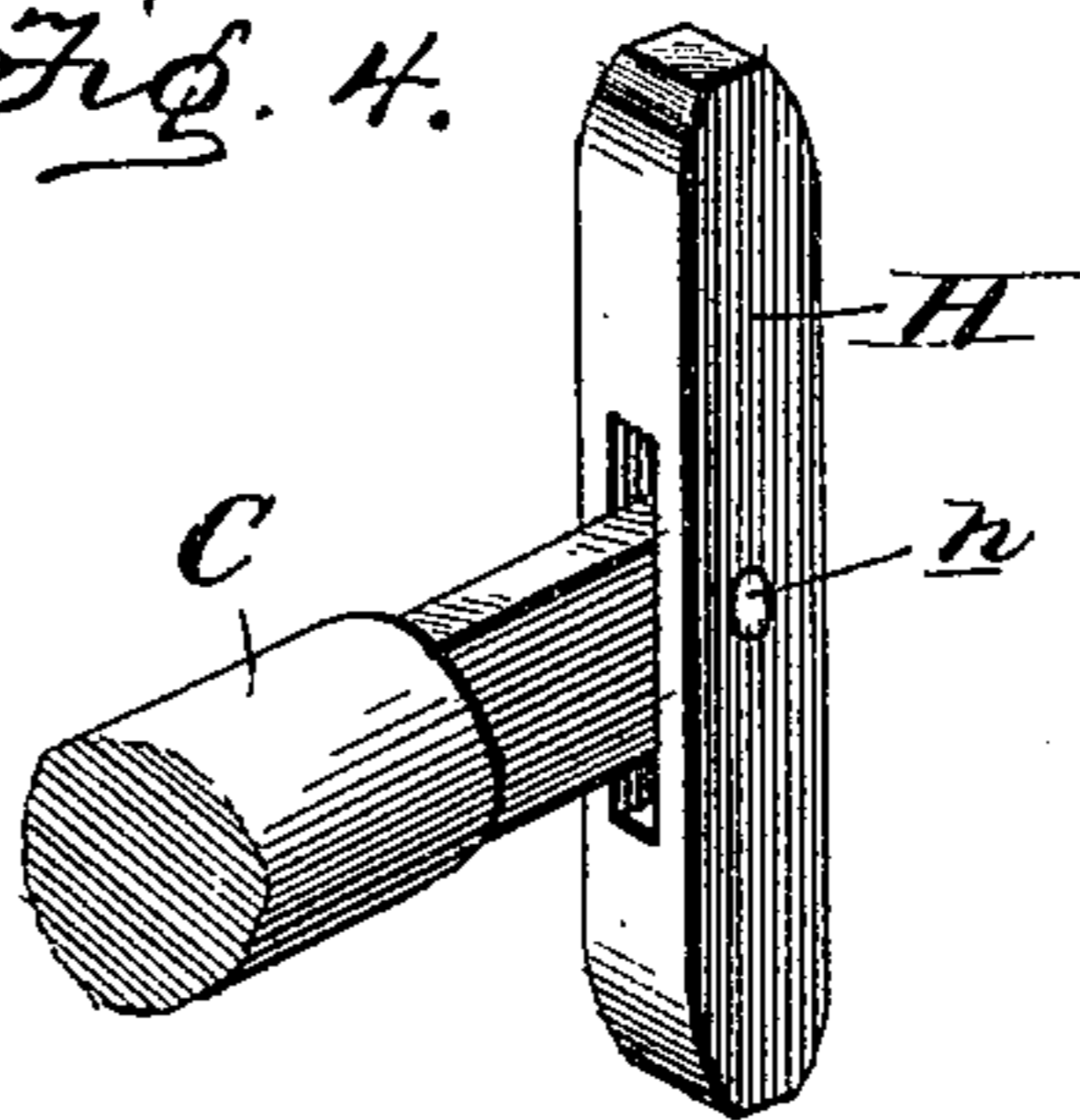
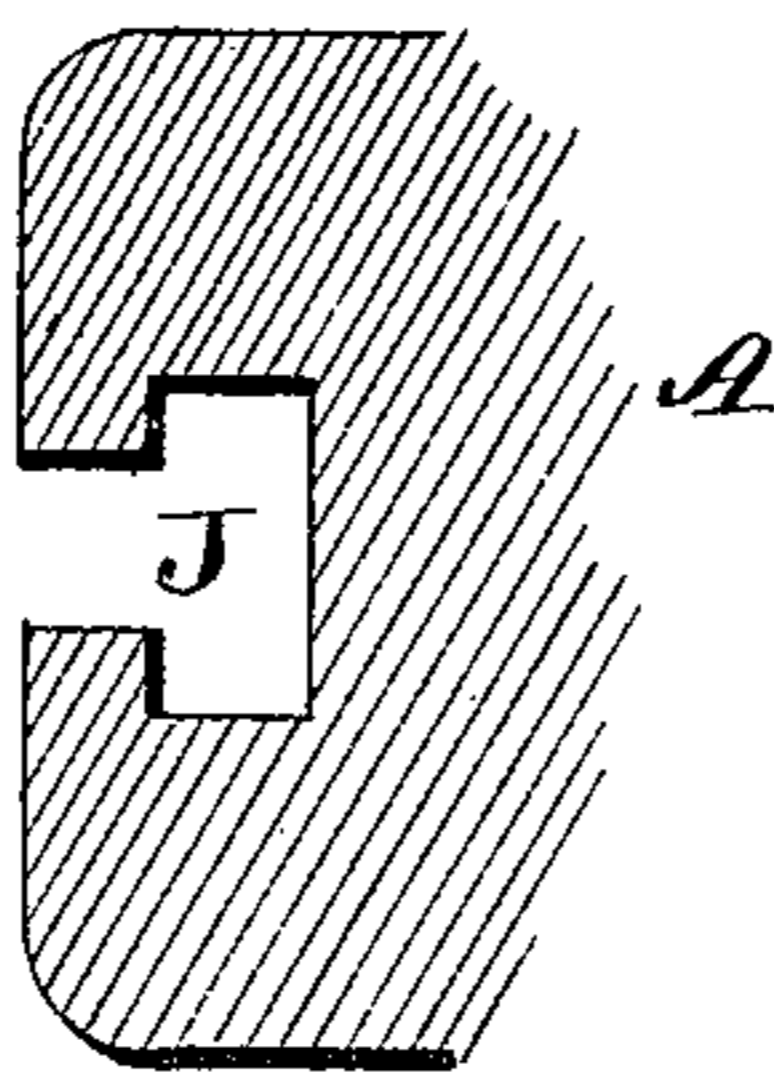


Fig. 5.



WITNESSES

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2 Sheets—Sheet 2.

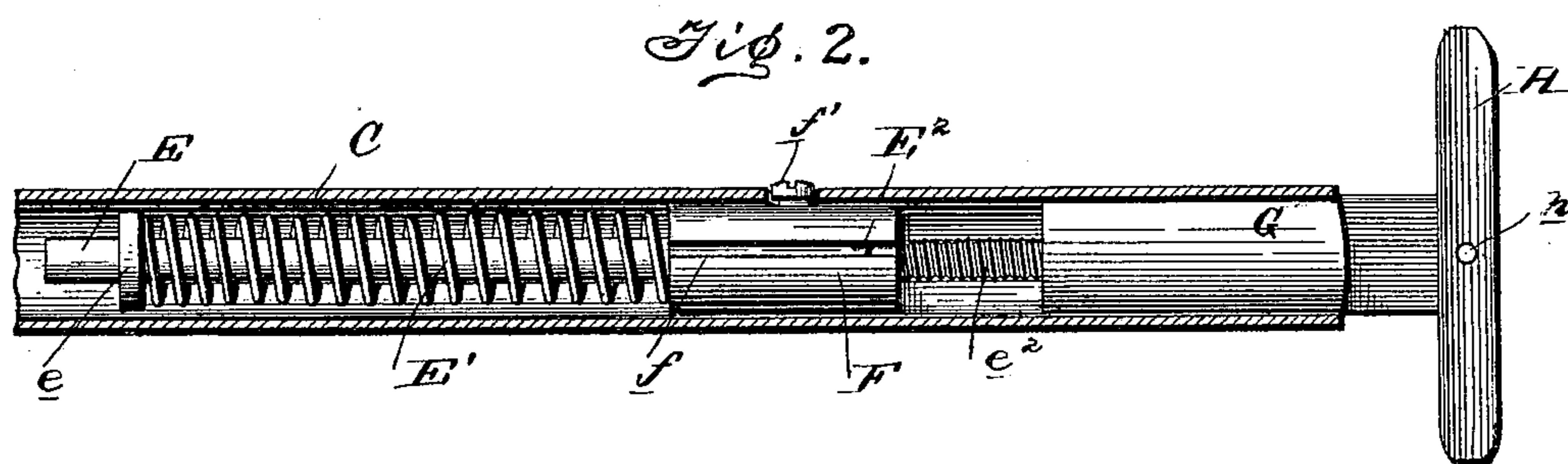


Fig. 6.

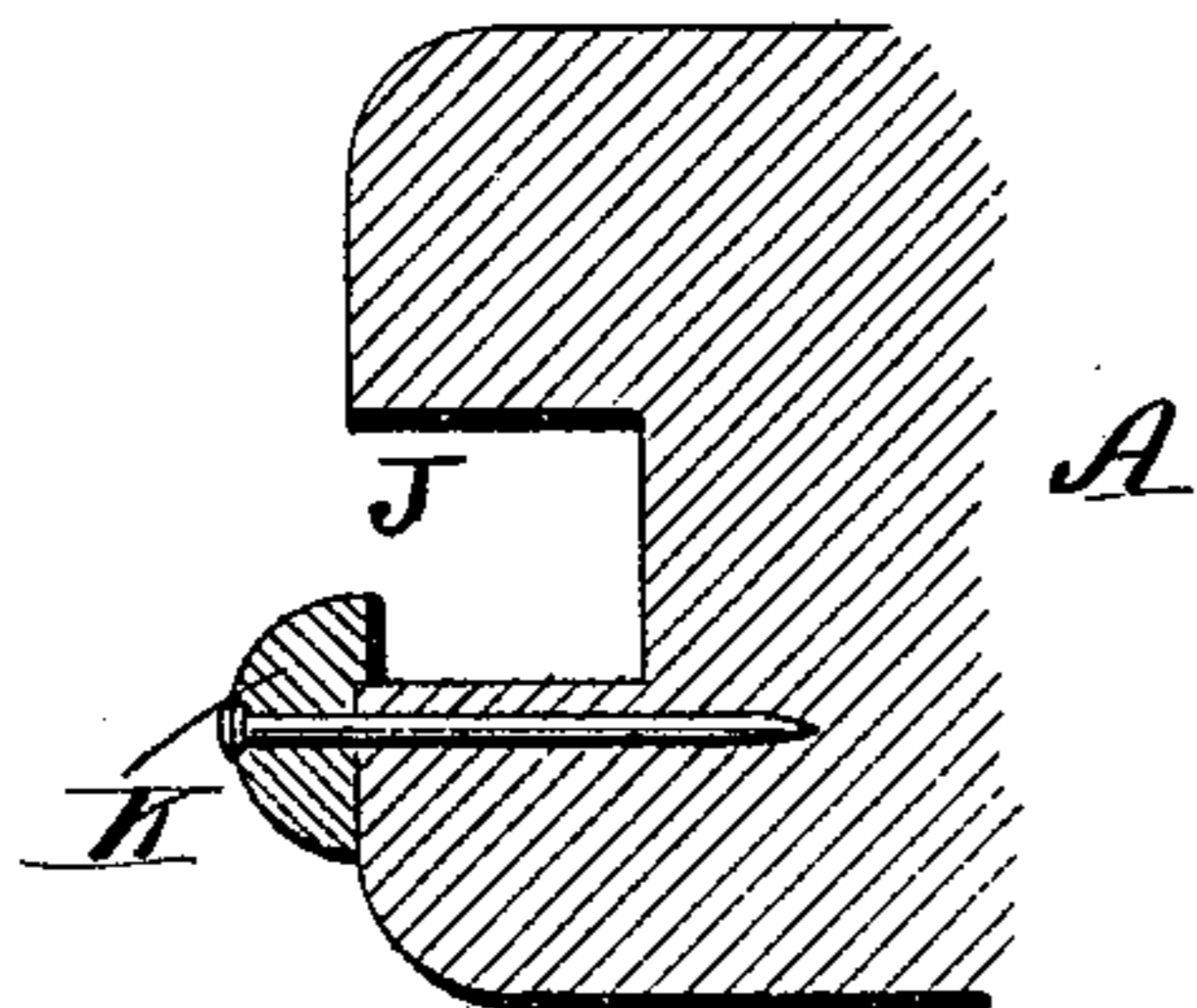


Fig. 7.

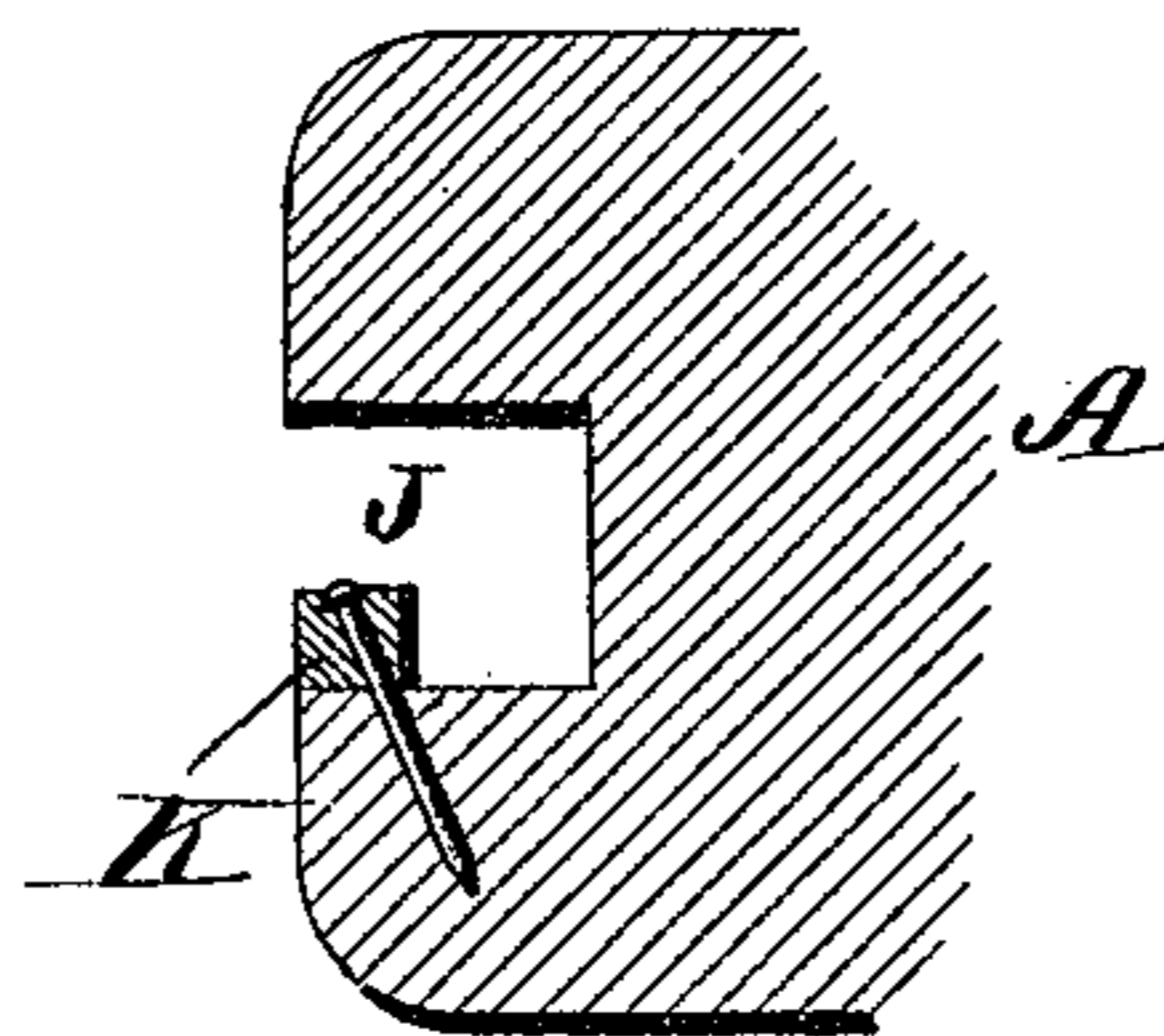
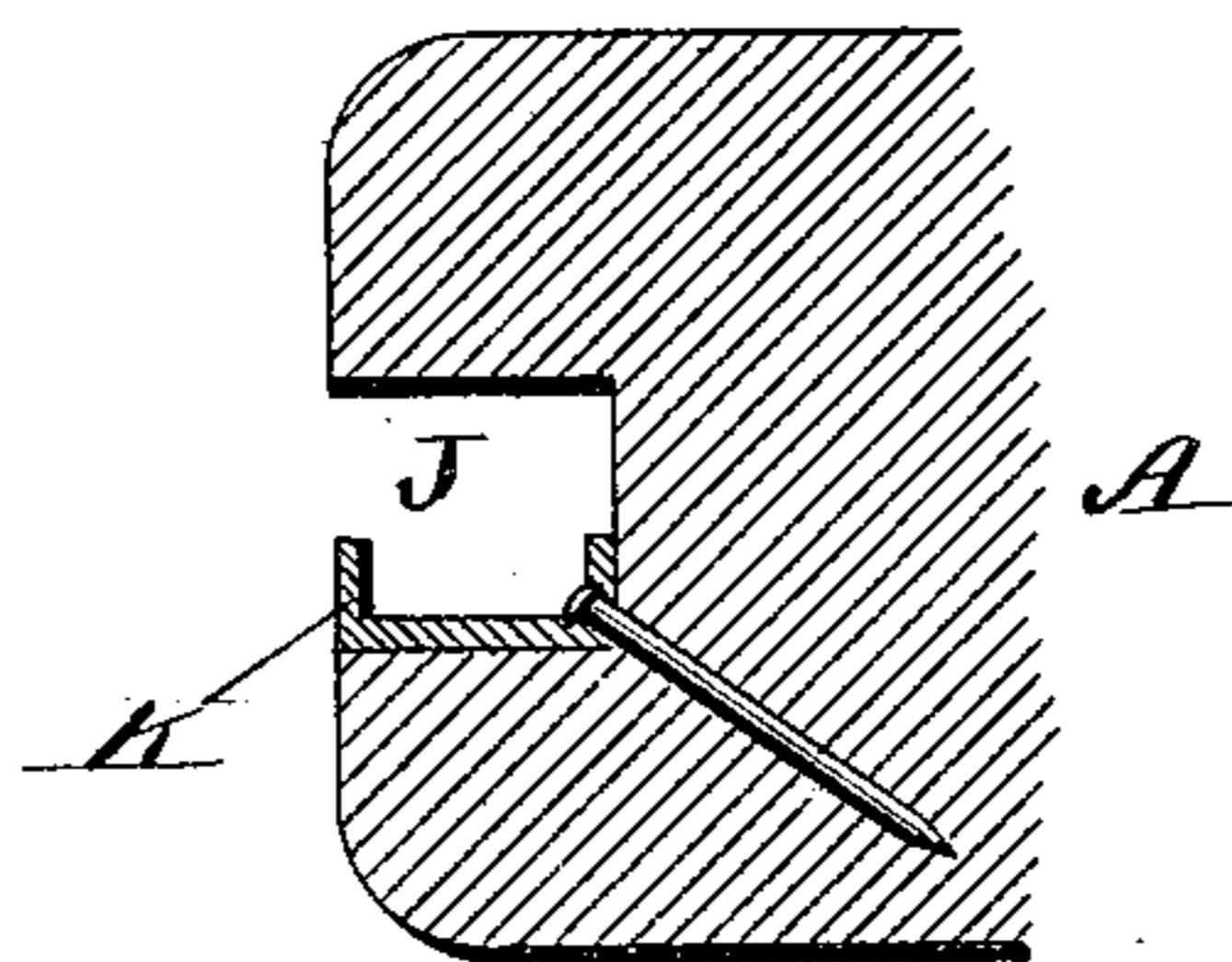


Fig. 8.



WITNESSES

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# UNITED STATES PATENT OFFICE.

FRANK M. BURROWES, OF PORTLAND, MAINE.

## SHADE-HOLDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 643,629, dated February 20, 1900.

Application filed June 9, 1899. Serial No. 719,955. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK M. BURROWES, a citizen of the United States, residing at Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Shade-Holding Devices; and I do hereby declare the following to be 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.

This invention relates to an improvement in shade-holding devices of that class wherein friction setting instrumentalities are employed for holding the shade or curtain at any desired point of adjustment.

Heretofore curtain-holding devices have been made with spring-pressed shoes working in grooves in the window-jamb. In the usual type of fixture the springs force the shoes outward against the bottoms of the grooves, and thereby serve to hold the shade in various positions of adjustment and against the tendency of the roller-spring to wind it up. This type of fixture is now very well known and largely used. In addition to the outwardly-pressed shoes it has been suggested to employ confining-grooves in the window-jamb, which grooves have usually overhanging flanges. When such grooves are employed, they have the advantages of preventing the friction tips or shoes from escaping from the grooves by improper handling. When such type of grooves has been used, it has been suggested to employ a fixture having retracting-springs as distinguished from propelling-springs and to place the friction-surface of the shoe on the inner face of the rigid head or shoe, the same bearing against the overhanging flanges. This arrangement has been found wholly unsatisfactory heretofore, owing to the fact that inasmuch as the shoes are rigid and prevented from escaping from the grooves there has been a tendency to break off the flanges or shoes when the fixture is improperly handled. Such rigid head structures are also objectionable inasmuch as the heads tilting with the stick bind or wedge themselves in the grooves, and thereby prevent the self-righting of the fixture. The objection to the confined rigid head type has been partly overcome in the outward-pressing

type of fixture by pivoting the shoes and allowing the rod carrying the shoes to move freely in and out of the hollow stick. Such an arrangement, however, has been found to be commercially objectionable, owing to the fact that the stick will always remain in a canted or inclined position when improperly handled and the rods carrying the pivoted shoes could be drawn wholly out of the stick.

The object of my invention is to provide a fixture which can be used successfully in connection with confining-grooves and which will be so arranged and constructed that it will automatically tend to right itself or assume a horizontal position after improper use or tilting and in which the friction setting-springs are employed to assist in the self-righting.

In the accompanying drawings I have illustrated a form of fixture embodying the invention and which while being satisfactory in its working and results is illustrated simply for the purpose of this specification, it being understood that the invention can be variously modified without departing from the nature and principle of the same.

In the drawings, Figure 1 represents an elevation of a window-casing, showing the fixture applied to the curtain therein delineated and parts in section, the fixture being shown in a tilted position in dotted lines. Fig. 2 is an enlarged detail sectional view of one end of the fixture, showing parts in elevation. Fig. 3 is a detail plan view showing the end of a fixture with its shoe in the groove, the side post being shown in cross-section. Fig. 4 is a view of the modified form of the head. Figs. 5, 6, 7, and 8 are variations or modifications of the retaining flanges or lips.

In the drawings, A represents a window-frame, and B a curtain or shade which is mounted on the spring-actuated roller B', the tendency of the spring of the roller being at all times to roll the shade up. At the lower margin of the shade is a hollow shade-stick C. Within the opposite ends of the stick are placed elongated rods or spindles E, each being provided near its inner end with an abutting collar e, while the outer end is loosely passed through the retaining-sleeve F, the extreme end being screw-threaded, as shown at e'. This rod or spindle has sleeved there-

on a coil-spring  $E'$ , the inner end abutting against the collar  $e$ , while the outer end abuts against the sleeve  $F$ . The adjustment of these parts is such that the tension of the spring is to move the spindle or rod inwardly toward the middle of the stick. The sleeve  $F$  is conveniently made with a longitudinal channel  $f$ , in which a pin  $E^2$  on the rod or spindle works, so that the rod or spindle is prevented from having independent rotation. The sleeve  $F$  is secured in place in any convenient manner, such as by a screw  $f'$  passing through the walls of the stick into the sleeve.

Fitted in the outerends of the stick are the heads or shoe-carrying stems  $G$ , their inner ends being cylindrical and fitting closely within the ends of the stick to avoid other than a reciprocating or in-and-out movement. The cylindrical portions have threaded bores, in which the threaded ends of the spindle engage, so that the same may be adjusted in or out, as conditions demand. The head or outer end of the part  $G$  has a flat face on one side, and on its extreme end is pivoted an elongated friction bar or shoe  $H$ , the same being pivoted by a pivot  $h$ , located at the center of the friction-bar. This bar has an even inner edge and is of a thickness and length sufficient to create sufficient friction for the purposes desired. The bars are located in the vertical grooves  $J$ , formed in the side of the window-frame, and are retained in these grooves by the overhanging lips or flanges  $K$ , which, as shown in Fig. 3, consist of metal plates secured by screws or otherwise to the side posts. While this form of securing-flange is satisfactory, it is apparent that other forms can be employed, such as shown in Figs. 4, 5, 6, and 7. In the former the lips are made integral with the post, while in Fig. 5 a head is nailed or tacked onto the post and overhangs the groove. In Fig. 6 the small bead is placed directly within the groove and there secured by brads or other means. In Fig. 7 I place a substantially U-shaped metal strip within the groove and tack or nail the same securely at one end near the base of the groove. The overhanging portions, such as the construction shown in Figs. 4, 5, 6, and 7, are flush with the faces of the side post. This in some cases may be desired.

It will be noticed that the above-described invention is exceedingly simple, the friction-block consisting only of metal, its length and breadth being such as to act as fully and as forcibly as one of the smaller tips with rubber or leather and is much more desirable. The preferred form of flange and shoe is that shown in Figs. 2 and 3; but in Fig. 5 I have shown a form wherein the bar is centrally pivoted to the head and in which case the head is made flat on both sides. By flattening the head the same is permitted to enter the groove between the flanges or between the flange and opposite wall of the groove, and the bar or shoe projects laterally be-

yond the same, engaging the overhanging flanges. I have found that by properly adjusting the tension of the springs of this fixture and by the employment of the elongated pivoted heads the springs will draw the stick into horizontalism after the same has been tilted, as shown in dotted lines, Fig. 1, owing to the fact that the shoes are confined and pivoted and tilting the stick necessarily compresses the springs, placing them under sufficient tension to right the stick when the pressure is removed. This is an important feature. It is also apparent that by the rough usage to which these fixtures are subjected this arrangement and construction will withstand the same and maintain the stick and curtain always in the proper condition. The advantage of the adjustment of the spring is material, inasmuch as should the spring become weak by constant use and not reset the stick or create sufficient pressure to hold the curtain in its proper position then by simply turning the head the distance between the bars or friction-shoes can be varied. It will also be noted that the entire mechanism is contained in the outer ends of the stick, so that it requires but little effort and expense to adjust and place the same.

I have employed the term "pivoted" in this specification to indicate the connection between the rods and shoes; but I desire it understood that the term is employed in a general sense and includes the mechanical equivalent thereof as well as the form shown.

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

1. In a shade-holding device, the combination with a stick, longitudinally-movable shoes at the ends of the stick, pivotal connections between the stick and shoe and springs tending to move the shoes inward and resisting the tilting movement of the stick, of jambs having vertical grooves therein in which the shoes are placed and retaining edges projecting over the grooves for preventing the escape of the shoes and on which the shoes slide, substantially as described.

2. In a shade-holding device, the combination with confining-guides on the window-jambs and a shade-stick, of friction-shoes pivotally connected therewith and having independent longitudinal movement, and spring-pressed means carried by the stick and extending into the same for resisting the tilting movement of the stick and for moving the shoes inward, substantially as described.

3. In a shade-holding device, the combination with the side posts having vertical guide-grooves therein and overhanging flanges, of a shade-stick having rods or spindles therein, shoes pivoted on the ends of the stick and working in the grooves, yielding means normally forcing the shoes inward toward the stick and means for adjusting the shoes relative to the stick, substantially as described.

4. In a shade-holding device, the combina-

tion with the side posts having guide-grooves with overhanging retaining-flanges, of a curtain-stick and inwardly-spring-pressed elongated shoes pivotally connected with the stick and located in the grooves, substantially as described.

5. In a shade-holding device, the combination with a hollow stick, of spindles arranged in the ends of the stick, elongated shoes pivotally connected to the spindles at the ends of the stick, and springs for normally moving the spindles inward, substantially as described.

6. In a shade-holding device, the combination with a hollow stick, of spring-retracted rods mounted therein, pivoted tilting shoes at the ends of the rods and retaining-guides for the shoes at the sides of the window-frames, substantially as described.

7. In a shade-holding device, the combination with a shade and side posts, of pivoted shoes carried by the shade, means for holding the shoes in proper position relative to the posts, and yielding means normally tending to move the shoes toward each other, substantially as described.

8. In a shade-holding device, the combination with a hollow shade-stick, of reciprocating rods at opposite ends of the stick, elongated tilting shoes pivotally connected to the rods, means for adjusting the rods and springs normally tending to force the rods inward, substantially as described.

9. In a shade-holding device, the combination with a shade-stick, of rods movably mounted in the ends thereof, tilting shoes pivotally connected to the ends of the rods,

springs having a normal tendency to draw the rods inward and means for adjusting the shoes relative to the rods, substantially as described.

10. In a shade-holding device, the combination with a hollow stick, of rods mounted therein, heads on the rods having reduced portions at their outer ends, tilting shoes pivotally connected to the outer ends of the heads, springs for normally forcing the rods inward and guides having overhanging retaining-flanges with which the shoes engage, substantially as described.

11. In a shade-holding device, the combination with a stick, of pivoted shoes carried thereby and extending above and below the same, springs interposed between the shoes and stick for moving the shoes inward to resist irregular movements of the stick and normally maintain the same in a horizontal position, guides located adjacent to the ends of the stick and in which the shoes are placed and means for retaining the shoes in the guides, substantially as described.

12. In a shade-holding device, the combination with the jambs of a window-frame having vertical guide-grooves, of a holding-fixture having pivoted heads, and substantially U-shaped strips secured in the grooves for retaining the heads in the grooves, substantially as described.

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

FRANK M. BURROWES.

Witnesses:

MARY E. ROBERTS,  
STEPHEN W. CARLE.