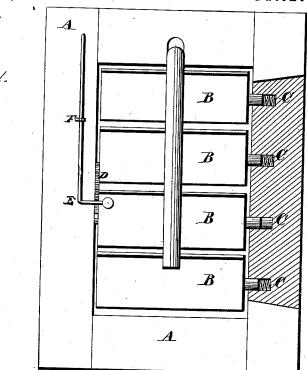
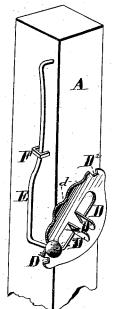
J. L. A. JOHNSTON & C. B. HOPKINS. BLIND- SLAT ADJUSTERS.

No. 169,644.

Patented Nov. 9, 1875.



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(N.J. Mawman, Efames L. a Johnston.

R. M. Bara Leggest Legged, Attorneys.

UNITED STATES PATENT OFFICE.

JAMES L. A. JOHNSTON AND CHARLES B. HOPKINS, OF TOPEKA, KANSAS, ASSIGNORS OF ONE-HALF THEIR RIGHT TO A. G. HAUBACK, OF SAME PLACE.

IMPROVEMENT IN BLIND-SLAT ADJUSTERS.

Specification forming part of Letters Patent No. 169,644, dated November 9, 1875; application filed October 30, 1875.

To all whom it may concern:

Be it known that we, James L. A. John-STON and CHARLES B. HOPKINS, of Topeka, in the county of Shawnee and State of Kansas, have invented certain new and useful Improvements in Window-Shutters or Blind-Slat Adjusters; and we 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to an improvement in window-shutters or blind-slat adjusters.

In the drawings, Figure 1 represents a view of our invention, partly in side elevation and partly in section. Fig. 2 is a view of our lockplate.

Our invention consists of a notched plate or disk, having slots or seats in its edge, and arms or projecting pieces, by which it is secured to the slats of the window, and a handled spring attached to the inside of the frame, operating against said plate, in the slots therein, and combined therewith; in inserting within the frame, against the end of the journals of the slats, suitable coilsprings, which prevent lateral motion of the slots, and operate in connection with the notched plate and handled spring, to hold the slats tight in place, as and for the purposes hereinafter more fully set forth and claimed.

A is any suitable frame; B, the usual rocking slats trunnioned in the frame A. C are springs, which may be of rubber, metal, or any suitable elastic material, placed beyond the trunnion at one end of the slats B, or in any way applied to one end of the slats B, so that their function and operation shall be to prevent rattling or undue movement in a lat-

eral direction.

The object of our invention is to obtain a noiseless shutter or blind, and to obviate the disagreeable rattling caused by the action of the wind on shutters or blinds of ordinary construction.

The springs C, heretofore mentioned, prevent lateral movement. To prevent vertical motion we apply the locking-plate D, formed substantially as shown in Fig. 2 of the draw-

ings, into whose slots, seats, or notches engages the handled locking-spring E. This lockingspring is a simple wire bent at its upper end, so as to be inserted in the frame A; thence passing downward under the staple F and beyond said staple F a suitable distance, when it is bent at, substantially, a right angle, and may or may not be provided with a knob, handle, or any suitable ornamental termina-

It will be observed that our locking-plate D is provided with two attaching-arms, D1, which embrace the slat B, and by which it is firmly fixed and attached to any slat. The entire locking-plate D, with its arms D1, may be struck from a single plate, and at one operation, and is readily removable and applicable to any style of shutter or blind, as is also the locking-spring C. The general form of plate D is the notched arc of a circle, and at either extremity of said arc the deep and abrupt slots or seats D2 are provided, whereby the slats B may be firmly locked by the locking-spring E engaging therein. It will thus appear that we have accomplished both a noiseless shutter or blind, whereby the slats B are effectually prevented from rattling in any direction by the action of the wind or otherwise, and that we have also accomplished a device whereby the slats of the shutter or blind may be quite effectually

What we claim as our invention is-

The improved locking and adjusting device, consisting of the notched plate or disk D, having deep slots or seats D² and attaching-arms D1, in combination with the frame A, window-blind slats B, and springs C, together with the handled spring E, attached to the inside of the frame, all substantially as described and shown, for the purposes herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 18th day of March, 1875.

> JAMES L. A. JOHNSTON. CHARLES B. HOPKINS.

Witnesses:

WILLIS NORTON, J. G. SLONECKER.