

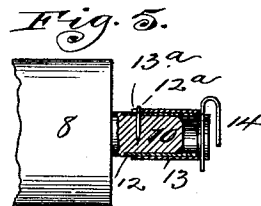
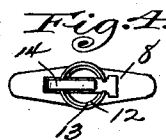
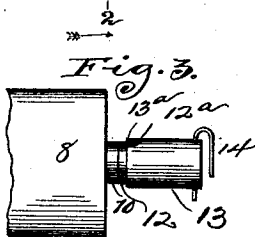
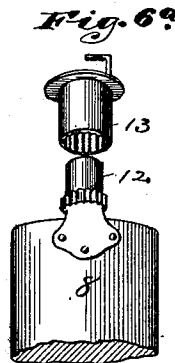
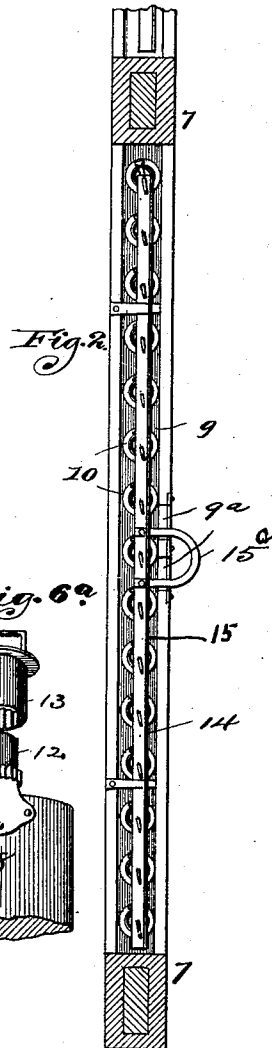
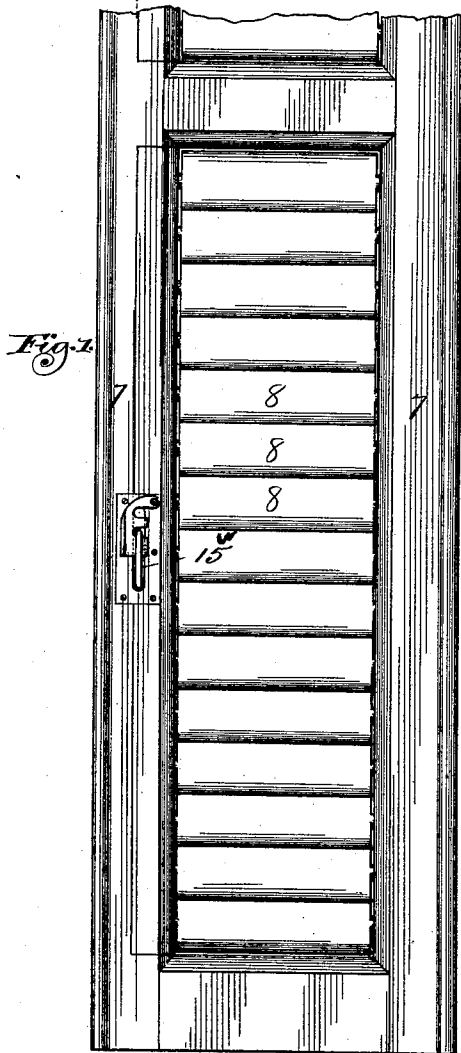
No Model.)

2 Sheets—Sheet 1.

H. T. BUHMEIER.
WINDOW BLIND.

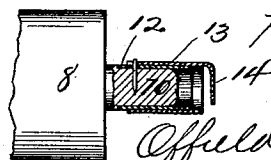
No. 479,398.

Patented July 26, 1892.



Witnesses,
S. J. Mann,
Frederick Goodwin

Fig. 6.



Inventor,

H. T. Buhmeier

Offield Fowler & Knuthman,
Attys.

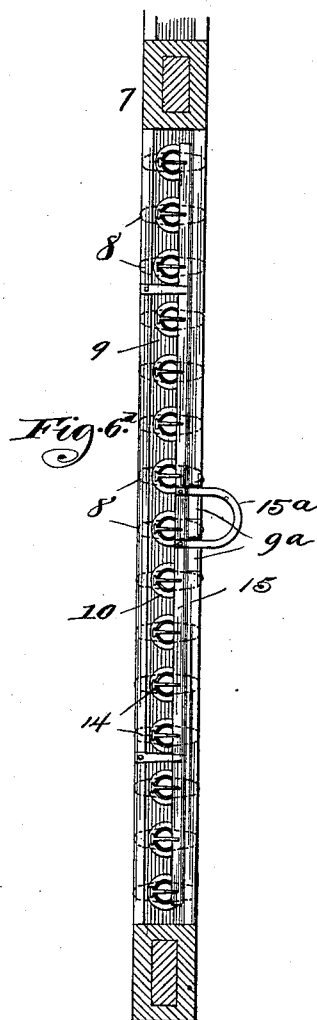
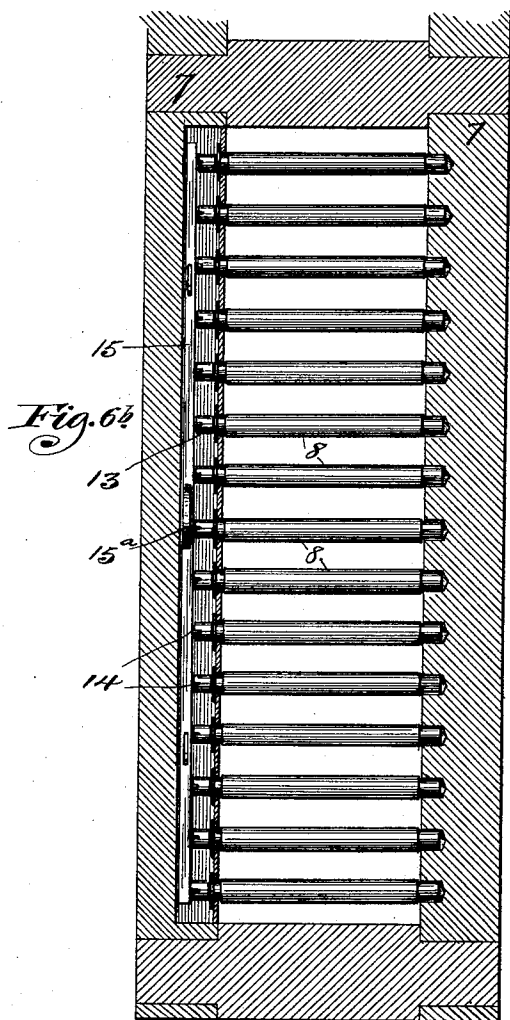
(No Model.)

2 Sheets—Sheet 2.

H. T. BUHMEIER.
WINDOW BLIND.

No. 479,398.

Patented July 26, 1892.



Witnesses,
F. J. Mann
Frederick Goodwin

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Attys.

UNITED STATES PATENT OFFICE.

HENRY T. BUHMEIER, OF ELGIN, ILLINOIS.

WINDOW-BLIND.

SPECIFICATION forming part of Letters Patent No. 479,398, dated July 26, 1892.

Application filed April 20, 1891. Serial No. 389,677. (No model.)

To all whom it may concern:

Be it known that I, HENRY T. BUHMEIER, a citizen of the United States, residing at Elgin, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Window-Blinds, of which the following is a specification.

My invention has for its object to provide simple and inexpensive means for adjusting in unison the movable slats of window-blinds.

It has been proposed heretofore to operate the several slats of a window-blind by a chain whose links were made to engage toothed wheels fixed to the tenons of the several slats. This construction is expensive, and there must be provided in connection therewith tension-rolls or other devices for maintaining the chain in contact with the teeth of the wheels. The above-described construction is shown in my patent, No. 371,300, dated October 11, 1887.

In my present construction I cut away the inner edge of one of the vertical stiles of the blind and fit thereto a grooved strip perforated in the side wall of the groove for the passage of the tenons of the slats into the recess of the strip. These tenons, which are cylindrical in form, are provided with ferrules secured thereto by means of pins the ends of which protrude, and a sleeve is fitted over the ferrule, said sleeves having a notch which is adapted to receive the projecting end of the pin, whereby to lock the sleeve and ferrule together. Each sleeve has an eccentric projection therefrom, and these projections, being arranged in the same plane, are each engaged and pivotally connected to an operating-bar having an endwise reciprocating movement within the recess. A slot is formed longitudinally of the grooved strip, and through this slot a handle connected with the bar projects to afford means for reciprocating the bar endwise within the groove.

In the accompanying drawings, Figure 1 is a view of a portion of a blind in elevation. Fig. 2 is a sectional elevation on the line 2 2 of Fig. 1, looking in the direction of the arrow. Fig. 3 is a detail view of the end of one slat, showing the tenon and ferrule and the sleeve with its eccentric projection. Fig. 4 is an end view of the same. Fig. 5 is a detail

view showing the tenon, sleeve, and ferrule in sectional elevation; and Fig. 6 is a detail view of a modified construction of the eccentric pin or projection from the sleeve. Fig. 6^a is a detail view of a modified construction of the ferrule and sleeve, which are corrugated so as to adapt them to be locked together. Fig. 6^b is a sectional elevation through the frame of the blind; and Fig. 6^d is a sectional elevation on the line 2 2 of Fig. 1, showing the slats open.

In the drawings, 7 indicates the frame of the blind, and 8 the slats thereof. One of the vertical stiles of the blind is cut away on its inner edge, and in place of the cut-away portion I employ the grooved strip 9, the groove being formed longitudinally of the strip upon its outer face and the side wall of said groove being perforated for the passage of the tenons 10 of the slats 8. The tenon of each slat is provided with a ferrule 12, and over this ferrule is fitted a sleeve 13, having an eccentric projection—such as 14—thereon.

In the form of construction shown in Figs. 1 to 5, inclusive, this projection is a flat metallic hook or pin fitted into notches in the end of the sleeve, while in Fig. 6 the hook is shown formed integrally with the sleeve. The ferrules are fastened to the tenons by means of the pins 12^a, the ends of which are permitted to project, so as to enter the notches 13^a in the inner ends of the sleeves 13. When the pins are seated in the notches, the sleeves and ferrules are locked together.

In the form of construction shown in Fig. 6^a the ferrule has its surface corrugated next to the slat and the sleeve has its interior corrugated throughout its length. In this construction, when the sleeve is slipped over the ferrule, so that its corrugations engage those of the ferrule, the two are locked together.

15 represents a reciprocating bar, which is eccentrically connected to the several sleeves by means of the projections therefrom. In the present instance the bar is perforated and the hooks pass through these perforations. This bar has an operating-handle 15^a, which projects through a slotted opening 9^a in the side wall of the grooved strip 9.

In assembling the parts the slats, being

fitted to the opposite stile from the grooved strip, have their tenons inserted through the apertures in the grooved strip, and this strip will be removably fastened in the cut-away portion of the stile. In operation the handle, being moved either up or down, permits of the adjustment of the several slats in unison.

If it be desired to adjust one of the slats independently, it may be moved slightly endwise away from the grooved strip, as shown in Fig. 6^b, so that its pin will clear the notch in the end thereof, and then it may be turned to any desired angle. In the modified construction the endwise movement of the slat causes the disengagement of the corrugated portions of the sleeve and ferrule.

I do not limit my invention to the precise details of construction herein shown and described. For example, the ferrules, which are applied to the tenons provided with projections, such as the pins 12^a, might be omitted and the tenons adapted to interlock directly with the sleeves. The hooks also might be omitted and the operating-bar eccentrically connected with the sleeves in other ways—for example, by a small stud projecting in line with the periphery of the sleeve.

My invention may be readily applied to window-blinds of the ordinary construction by sawing out from one of the vertical stiles thereof a strip and then grooving said strip in its outer face for the reception of the bar, and it is for this reason, chiefly, that I have described the strip as separate; but it will be understood that provision will be made in the manufacture of the blinds for applying my improvements thereto without the necessity of severing the stile after the blind is made.

I claim—

1. The combination, with the pivoted slats of a blind, of sleeves applied to the tenons of said slats, said tenons having projections thereon, whereby they are adapted to interlock with the sleeves, and an operating-bar

eccentrically connected with said sleeves, substantially as described.

2. In combination with a blind having one of its vertical stiles cut away, a strip fitted to said stile at the cut-away portion, a longitudinal recess in the outer face of said strip and perforations through its inner wall, pivoted slats having their tenons extended through the perforations in the strip into the recess, sleeves upon said tenons, and said tenons having projections thereon adapted to interlock with the sleeve, and an operating-bar eccentrically connected to said sleeves and adapted to be reciprocated within the recess, substantially as described.

3. In a blind, the combination, with the pivoted slats, of a removable grooved strip adapted to be secured to one of the vertical stiles of the frame, said strip being recessed on its outer face and perforated through its inner face for the passage of the slat-tenons, said tenons having ferrules secured thereon, sleeves fitted over said ferrules, and means for locking the sleeves and ferrules together, and an operating-bar eccentrically connected to said sleeves and adapted to be reciprocated within the recess of the grooved strip, substantially as described.

4. In means for adjusting the slats of window-blinds in unison, the combination, with said slats and a grooved strip having perforations to receive the slat-tenons, of ferrules secured on the tenons and bearing locking-pins, sleeves fitting over said ferrules and adapted to be locked thereto by engagement with the pins, said sleeves having eccentric projections thereon, and an operating-bar engaged with the several projections of the sleeves and having a handle working through a slot in the grooved strip, substantially as described.

HENRY T. BUHMEIER.

Witnesses:

C. C. LINTHICUM,
FREDERICK C. GOODWIN.