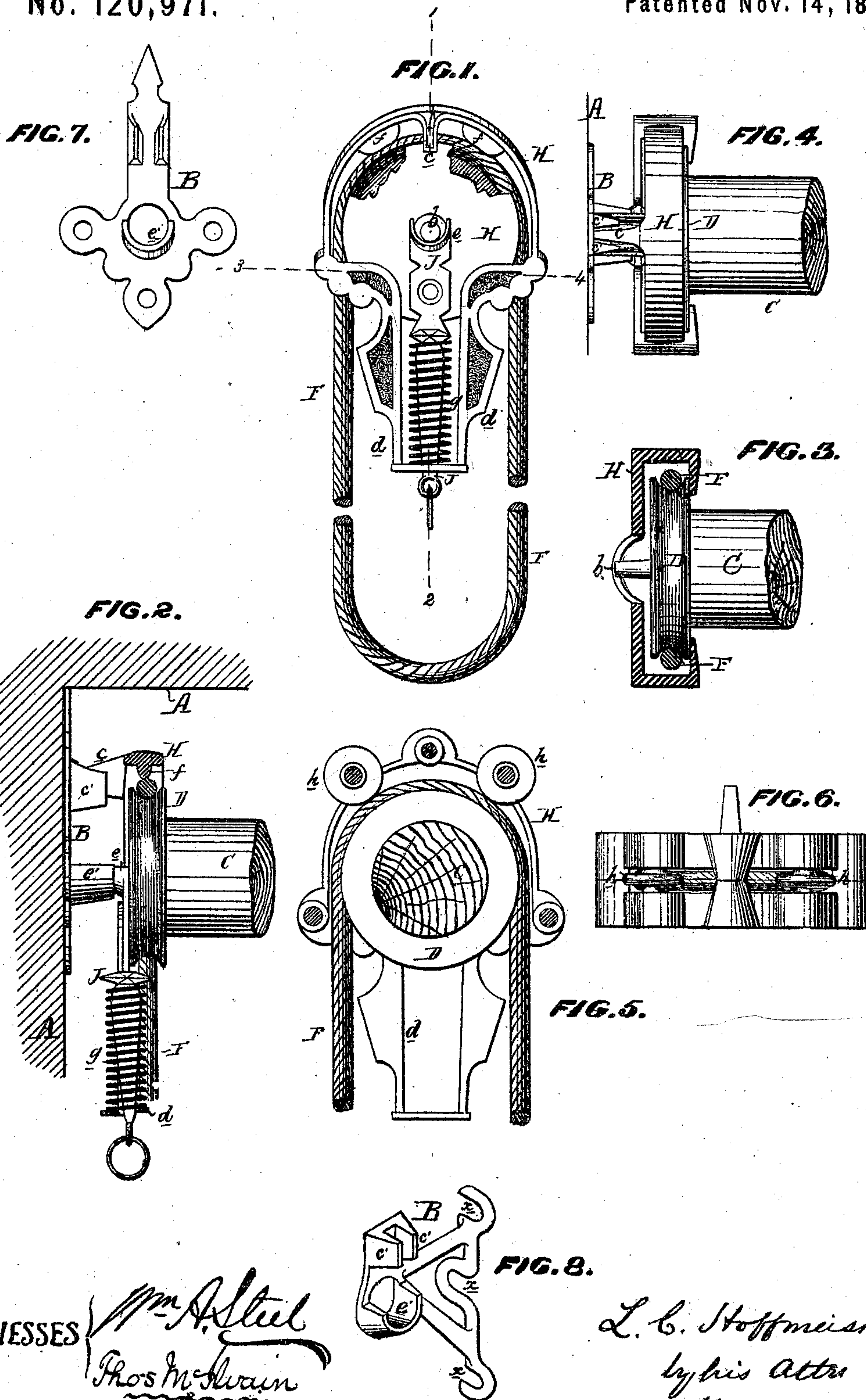


L.C. Hoffmeister Jr.
Inpts. in Window Shade Features.

No. 120,971.

Patented Nov. 14, 1871.



WITNESSES

M. A. Steel
Thos McSwain

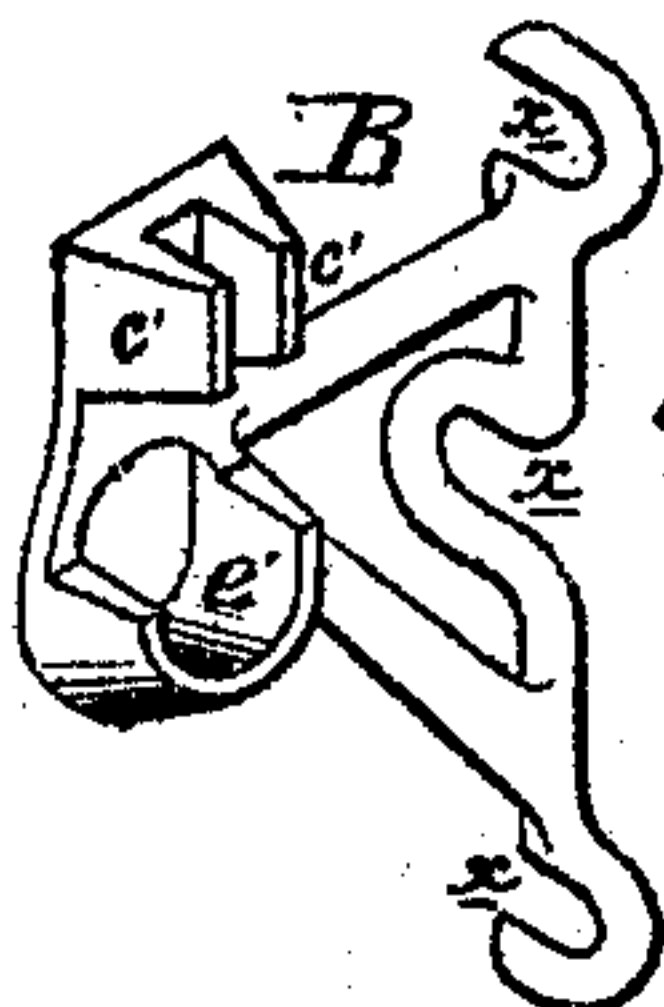


FIG. 8.

L. C. Hoffmeister Jr.
by his Atty
Horsensson

UNITED STATES PATENT OFFICE.

LOUIS CHRISTIAN HOFFMEISTER, JR., OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN WINDOW-SHADE FIXTURES.

Specification forming part of Letters Patent No. 120,971, dated November 14, 1871.

To all whom it may concern:

Be it known that I, LOUIS CHRISTIAN HOFFMEISTER, Jr., of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented certain Improvements in Window-Shade Fixtures, of which the following is a specification:

My invention consists mainly of a friction-box, fully described hereafter, adapted for the reception of one end of a window-shade roller, and arranged to act directly upon the latter or through the medium of the operating cord, so as to prevent the roller from being turned by the weight of the shade; the main object of the arrangement being to enable the objectionable cord-retaining ratchet, or springs within the roller, to be dispensed with. My invention also consists of certain improvements, hereafter described, in the construction of the brackets or fixtures for the support of the shade-roller and friction-box.

Figure 1 is an end view of a shade-roller and operating-cord with my invention applied to the same; Fig. 2, a vertical section on the line 1 2, Fig. 1; Fig. 3, a sectional plan on the line 3 4, Fig. 1; Fig. 4, an exterior plan view; Fig. 5, a sectional view of a modification; Fig. 6, a plan view of Fig. 5; and Figs. 7 and 8, views of the fixtures or brackets for the support of the roller and friction-box.

My invention has been designed as a substitute for the ordinary side-racks or retainers for the operating-cords of window-shades, and for the balancing springs arranged within the interior of hollow shade-rollers in cases where operating-cords are not employed. The balancing springs are expensive and liable to get out of order, and the side racks require to be continually lowered or tightened to take up the slack of the operating-cord and prevent the latter from sliding loosely upon or slipping off of the grooved pulley at the end of the shade-roller. These objections are entirely overcome by my invention, as I will now proceed to describe.

On reference to the drawing, A represents part of a window-frame, and B a bracket or fixture secured to the same, and having a bearing for the support of the trunnion *b* of the shade-roller C, which is provided at one end with the usual grooved pulley D for the endless operating-cord F. The latter, instead of being drawn tightly downward and retained at its lower end by the usual side rack, is permitted to hang loosely, as

shown in Fig. 1; or may, if desired, have a light weight attached to its lower end to prevent it from twisting. A box or case, H, of metal, hard rubber, or other suitable material, is fitted over the grooved pulley and operating-cord, and overlaps the pulley sufficiently at the top and sides to prevent it from becoming disengaged from the same, as shown in Figs. 1 and 3, and is also retained laterally by means of a projection, *c*, at its rear upper edge, which is adapted to a corresponding recess, *c'*, formed between projections on the supporting-bracket B. At the rear lower edge of the box H is a long recessed projection or hanger, *d*, adapted for the reception and support of a vertical sliding bar, J, having a semi-circular socket, *e*, at its upper end, within which turns the trunnion *b* of the shade-roller, the socketed end of the bar itself resting in a similarly-shaped socket, *e'*, of the supporting bracket B. In the interior of the box H, directly over the grooved pulley, and resting upon the operating-cord, as shown in Figs. 1 and 2, are two or more rounded lugs, *f*, which are caused to bear upon the said cord, and through the medium of the same upon the grooved pulley and shade-roller, by the action of a spiral or other spring, *g*, which is interposed between a shoulder on the bar J and the bottom of the box H, and consequently forces the pulley upward into the box and the latter downward onto the pulley. The pressure thus exerted upon the operating-cord can be regulated to a nicety by means of the spring, and should be such as not to cause undue friction when turning the roller by means of the operating-cord, but only sufficient to prevent the turning of the pulley and roller, and the unwinding of the shade from the latter by its own weight. Besides preventing the unwinding of the shade the arrangement also retains the operating-cord within the groove of the pulley, and insures the operation of the latter by means of the said cord. As a modification of my invention, and as a means of reducing the friction upon the operating-cord, small rollers *h h*, Figs. 5 and 6, may be substituted for the lugs *f f*; but the latter are to be preferred for a cheap class of fixtures.

Although I prefer to arrange the several parts as above described, it is not absolutely necessary that the friction-box should be adapted to the grooved pulley, or that its lugs or rollers should bear upon the operating-cord, as it might, in some

instances, be arranged to fit over and bear upon the plain flange or disk at the opposite end of the roller for the purpose of preventing the unwinding of the latter by the weight of the shade.

Either of the brackets shown in Figs. 7 or 8 may be used in connection with my invention, according to the shape or depth of the window-frame. Where a bracket of the form shown in Fig. 8 is employed, I prefer to construct it with recesses *x x x*, on opposite sides, in place of the usual screw-holes, as this method of construction enables core-boxes to be dispensed with in casting.

I claim—

1. The combination, substantially as described, of a friction-box with a shade-roller, or with its grooved pulley and operating-cord, for the purpose specified.

2. The friction-box H, adapted for the reception of the grooved pulley or flanged end of a

shade-roller, and having lugs or rollers arranged to bear upon the same or upon the operating-cord, and a spring-bar, J, arranged to bear against one of the trunnions of the roller and to force the latter and the friction-box together, all substantially as specified.

3. The combination, with the friction-box and its spring-bar J, of the bracket B with its recess *c'* and socket *e'*.

4. The bracket B, when constructed as shown in Fig. 8, with recesses *x* in place of the usual screw-holes.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

L. C. HOFFMEISTER, JR.

Witnesses:

WM. A. STEEL,

HARRY SMITH.

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