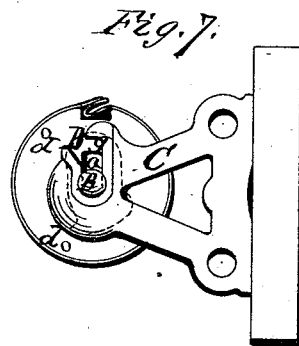
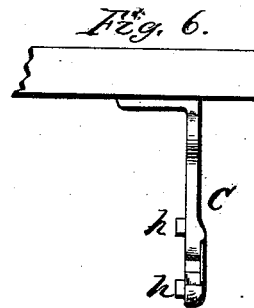
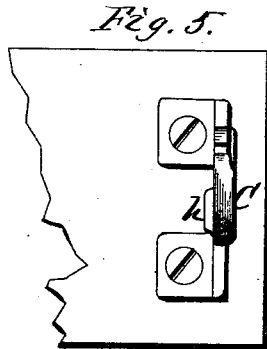
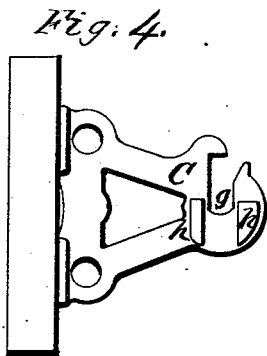
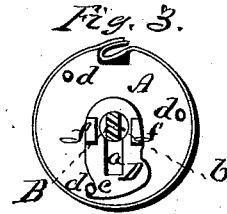
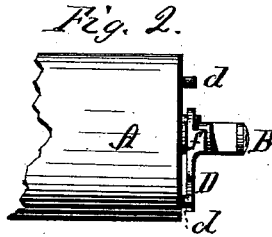
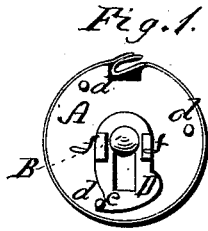


A. H. KNAPP.
Curtain-Fixtures.

No. 161,243.

Patented March 23, 1875.



WITNESSES
E. M. Gallahan.
R. D. Smith

INVENTOR
A. Hayden Knapp,
By *J. S. Brown, Jr.* ATTORNEY

UNITED STATES PATENT OFFICE.

A. HAYDN KNAPP, OF BRIGHTON, MASSACHUSETTS.

IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. 161,243, dated March 23, 1875; application filed January 21, 1875.

To all whom it may concern:

Be it known that I, A. HAYDN KNAPP, of Brighton, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Curtain-Fixtures; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings making part of this specification—

Figure 1 being an end view of a spring curtain-roller provided with my improvement; Fig. 2, a side view of the same; Fig. 3, a view similar to the view in Fig. 1, but showing a cross-section of the roller-spindle; Fig. 4, an inside view of a roller-bracket constructed to receive the improved roller; Fig. 5, a side-edge view of the same; Fig. 6, a top-edge view thereof; Fig. 7, an outside view of the bracket, and end view of the roller, when in the bracket.

Like letters designate corresponding parts in all of the figures.

My invention consists in an improved lock to prevent the roller-spring from unwinding when the roller is taken from the bracket, so constructed and arranged that while it does not interfere with the revolution of the roller when in the bracket the roller cannot easily be lifted out of the bracket till the lock catches and secures the spring from uncoiling, the lock requiring no special manipulation, substantially as herein specified.

In the drawings, A represents a spring shade-roller; B, the spindle thereof; and C, the open bracket.

The improved lock consists of a plate, D, having a slot, *a*, therein to embrace a notched and narrowed straight-sided part, *b*, of the spindle, as shown in Figs. 2 and 3, so that it is held in place on the spindle, and cannot turn, but can slide longitudinally a little distance thereon. At its lower extremity there is a slight notch or depression, *c*, in the side edge to catch against one of three (more or less) pins or projections, *d d d*, driven into or attached to the end of the roller A, so that, when so caught, the roller cannot turn on the spindle, and the spring cannot uncoil.

The lock D can only catch against the pins *d d d* when it is in its lowest position, as seen in Figs. 1, 2, and 3. When it is raised a little by sliding upward on the spindle the roller is allowed to turn as usual without interference therewith by the lock. And when the roller turns the other way, against the

action of the spring, the lock, being rounded off on that edge, at the lower end, as shown, will not catch against the pins. In forming the lock-plate the upper end of the slot is open to enable the plate to be put around the spindle, and then it is closed by bending the metal together, or otherwise.

To disengage the lock when the spindle is put in the bracket projections or shoulders *ff* are formed on the outer face of the lock-plate, which, when the spindle is inserted in the notched bearing *g* of the bracket, bear upon projections or shoulders *hh* on the inner face of the bracket. The arrangement of the projections *ff* and *hh* is such that as the spindle is pressed down to the bottom of the bracket-bearing they strike together and lift the lock D sufficiently to disengage it from the pin *d*, and hold it lifted, and allow the roller to freely turn while it is in the bracket. But on lifting the spindle in the bearing-notch for taking out the roller from the bracket, the lock falls again and catches against one of the pins *d d d* of the roller, and one of the peculiar advantages of the lock is that the roller-spindle cannot be turned to withdraw it through the bend in the bracket-notch till the lock catches one of the said pins, so that there is hardly a possibility of taking the roller from the bracket till it is locked on the spindle.

From this feature one good result arises, in that no special manipulation is required to make the lock operate, so that the roller can be inserted and withdrawn in places not easily seen, as behind shutters and brocade curtains, and in the run of the sash. Besides, no special directions are necessary to go with the shade-rollers to teach the operation of the locks.

What I claim as my invention, and desire to secure by Letters Patent, is—

The gravitating lock D, constructed and operating substantially as described, in combination with the roller A, having pins or projections *d d d*, the spindle B, and bracket C of a spring-curtain or shade-fixtute, substantially as and for the purpose herein specified.

Specification signed by me this 18th day of January, 1875.

A. H. KNAPP.

Witnesses:

H. W. KITTREDGE,
F. M. KELLEY,