

D. E. KEMPSTER.
CURTAIN-FIXTURES.

No. 174,910.

Patented March 21, 1876.

Fig. 1.

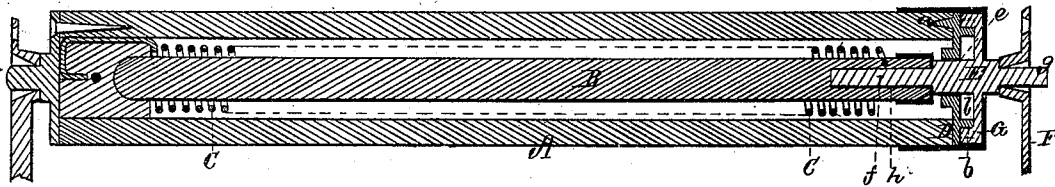


Fig. 2.

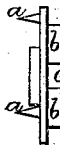


Fig. 3.

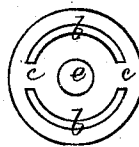


Fig. 4.

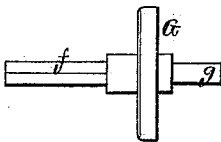


Fig. 5.

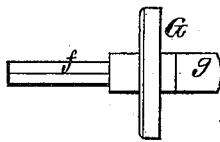


Fig. 6.

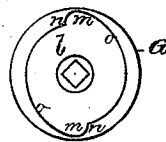
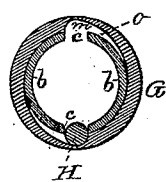


Fig. 7.



Fig. 8.



Witnesses.

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L. W. Milled.

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UNITED STATES PATENT OFFICE.

DANIEL E. KEMPSTER, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. **174,910**, dated March 21, 1876; application filed December 9, 1875.

To all whom it may concern:

Be it known that I, DANIEL E. KEMPSTER, of Boston, of the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Curtain or Window-Shade Fixtures; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 denotes a longitudinal section of a curtain or window-shade roller with my invention. Fig. 2 is a top view, and Fig. 3 a face view, of the flanged disk that is fixed to one end of the curtain-roller. Fig. 4 is a top view, Fig. 5 a side elevation, and Fig. 6 an inner face view, of the chambered and cammed disk and its spindle, to be hereinafter described. Fig. 7 is a side view of the latching-roller. Fig. 8 is a transverse section of the flanged and chambered disks and their small gravitating-roller.

My invention is applicable to, or intended for, a window-shade roller or curtain-roller having within it a helical spring for automatically revolving it to effect the winding upon it of the shade or curtain, such invention being intended for stopping the winding of the shade or curtain within any part of the range of its motion. The said invention or curtain-fixture consists in a disk fixed to the auxiliary spindle, and provided with a circular chamber and one or two cammed locking-recesses, constructed and arranged in it as herein set forth, in combination with a gravitating-roller, and with a flanged carrying-disk, fixed, when in use, to the curtain or shade roller, and provided with one or more openings through its annular flange, all being substantially as hereinafter set forth.

My curtain-fixture, though analogous to some others well known, in which the auxiliary spindle has a cavity in it to receive a ball or a pawl to work in an adjoining chamber, differs therefrom, and does not, like them, depend on centrifugal force for either throwing the ball or pawl into or out of action with the spindle. Furthermore, with my fixture the auxiliary spindle cannot be put in the bracket wrong or upside down, as the fixture will work whether the tenon of the spindle be fitted one way or the opposite in the socket of the bracket,

there being two cammed recesses in the chambered disk of the spindle.

In the drawings, A denotes a tubular curtain-roller, having concentrically within it a main spindle, B, and a helical spring, C, surrounding such spindle, the spring being fixed at one end to the roller, and at the other to the spindle. To one end of the roller A there is fixed, by means of spurs *a a*, &c., a metallic disk, D, having an annular flange, *b*, projecting from its outer face, and having one or more openings or passages, *c*, leading radially through it. The disk has a hole, *e*, through it centrally, so as to enable it to receive and turn upon a short auxiliary spindle, E, provided with prismatic tenons *f g*, extending from its opposite ends, one of which goes into a corresponding cavity, *h*, in the main spindle, and thus locks the main and auxiliary spindles, so as to prevent, when the latter is in the bracket F, the main spindle from revolving. There is fixed on the auxiliary spindle a disk, G, having in it concentrically a circular chamber, *l*, opening out of its inner side, such chamber being of a size to receive the annular flange *b*. Opening into such chamber are two cammed recesses, *m m*, they being arranged in the disk, and formed in manner as represented. Furthermore, there is placed in the chamber, and within the annular flange, a small gravitating-roller, H. To lock the curtain-roller so that it will not revolve, the roller H must be in the lower of the passages *c*, and at the same time in the lower of the cammed recesses *m*, and against its shoulder *n*.

On drawing the shade or curtain downward, so as to unwind it from the roller A, the small roller H will be readily forced, by the cam *o* of the recess, up into the flange *b*, so as to allow the roller A to be revolved; but, on ceasing to pull the shade or curtain down, and allowing it to slowly rise, the gravitating-roller will fall, by its weight, into the lowermost cammed recess, and thus, with such, will stop the curtain-roller from winding up the shade. When, however, it may be desirable to have the roller wind up the curtain, we have only to pull down the latter a little, and next let it start up quickly, in which case the roller H will not have time to drop sufficiently into a cammed recess for the two to effect stoppage.

of the curtain-roller from revolving, which roller will continue to turn until the shade is wound up to the required extent. Thus it will be seen that in my fixture the small roller H in no respect revolves around the spindle with the part fixed to the curtain-roller, but simply rests and turns on the lower portion of the flange-chamber of such part, and falls therefrom through the lower flange-passage when it may be desirable to stop the curtain-roller from revolving. Thus no centrifugal action or force is required to effect unlocking of the curtain-roller.

I do not claim a curtain-fixture in which the spindle is recessed, and the part to go around such recessed spindle is provided with a ball or a pawl to travel around with it and catch into the recess of the spindle; nor do I claim a curtain-fixture in which the spindle is recessed on its opposite sides, and the part to go

around such spindle is provided with two chambers and two bolts arranged therein, all as shown in the United States Patent No. 101,440.

I claim—

For application to a curtain-roller, A, and its spindle, B, provided with a winding-spring C, as described, the disk G, fixed to the spindle E, and provided with the chamber *l* and one or two locking-recesses, *m*, constructed and arranged in said disk as set forth, in combination with the gravitating-roller H and with the flanged carrying-disk D, provided with one or more openings, *c*, through its annular flange *b*, all being arranged to operate substantially as specified and represented.

DANIEL E. KEMPSTER.

Witnesses:

R. H. EDDY,
J. R. SNOW.