C. H. MILLER.

CURTAIN FIXTURES.

No. 180,489. Patented Aug. 1, 1876.

Fig. 1.

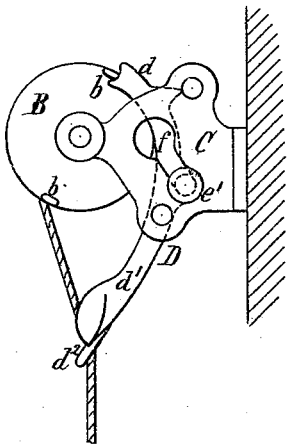


Fig. 2.

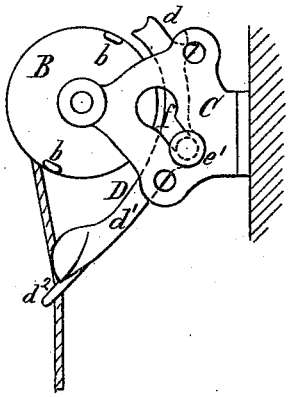


Fig. 3.

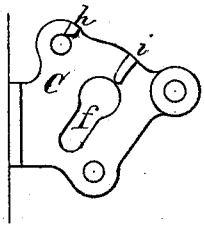


Fig. 4.

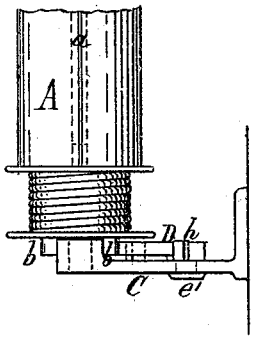


Fig. 5.

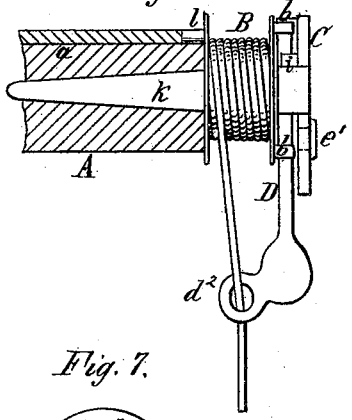


Fig. 6.

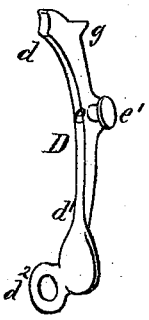
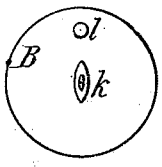


Fig. 7.



Witnesses

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C. M. Woodward

Charles H. Miller Inventor

By Edward Wilhelm

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UNITED STATES PATENT OFFICE.

CHARLES H. MILLER, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO HIRAM CHAMBERS, OF SAME PLACE.

IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. **180,489**, dated August 1, 1876; application filed March 30, 1876.

To all whom it may concern:

Be it known that I, CHARLES H. MILLER, of the city of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Curtain-Fixtures, which improvements are fully set forth in the following specification, reference being had to the accompanying drawing.

My invention relates to that class of curtain-fixtures which are provided with a spool or reel, upon which the cord is wound as the curtain is unrolled, and which are, furthermore, provided with a detent-pawl and lever, for preventing the unrolling of the curtain except when the detent-pawl is released by pulling on the cord, which passes through an eye or opening in the lower end of the lever.

My invention consists of the peculiar construction of the parts, as will be hereinafter more fully described.

In the accompanying drawing, Figure 1 is an end elevation of my improved curtain-roller with the detent-pawl engaged. Fig. 2 is a similar view with the detent-pawl disengaged. Fig. 3 is an inner view of the bracket. Fig. 4 is a plan view of the curtain-fixture and a portion of the curtain-roller. Fig. 5 is a front view thereof, with the curtain-roller in section. Fig. 6 is a detached view of the detent-pawl and lever. Fig. 7 is an inner end view of the spool or reel.

Like letters of reference refer to like parts in each of the figures.

A represents the curtain-roller, provided with a longitudinal groove, *a*, in which the edge of the curtain is secured by a suitable rod or bar. B is the spool or reel upon which the cord is wound. It is provided on its outer side with projecting teeth or stops *b*. C is the bracket, in which the reel B is supported by a suitable journal. D represents the detent-pawl, arranged between the reel B and bracket C. It consists of a pawl, *d*, and a depending lever, d^1, provided at its lower end with an eye or loop, d^2. *e* represents the pivot of the detent-pawl D, arranged on the outer side thereof, and provided with an enlarged head, *e'*. *f* represents an inclined or vertical slot or opening formed in the bracket C, for receiving the pivot of the detent-pawl. Its upper portion is made large enough to permit the head *e'* of the pivot to pass through, while its lower portion is contracted, so as to form a bearing for the pivot *e*. The detent-pawl D is connected to the bracket by passing the head *e'* of the pivot through the upper large portion of the opening *f*, and then letting it descend until the pivot *e* rests in the lower contracted portion of the opening *f*, when the head *e'* bears against the outside of the bracket, and securely holds the detent-pawl in place. The latter is provided, near its upper end, with a rearwardly-projecting tooth, *g*, so arranged that when the revolving teeth *b* of the spool, in raising the curtain, tend to lift the detent-pawl in the opening *f*, the tooth *g* of the pawl will strike under a stop, *h*, formed on the inner side of the bracket, and retain the detent-pawl in place. The stop *h* is, furthermore, so arranged on the bracket that when the upper end of the detent-pawl rests against it, the detent-pawl will clear the teeth *b* of the spool and permit the free rotation of the latter. *i* represents a similar stop, arranged on the inner side of the bracket, in front of the detent-pawl, so as to limit the forward movement of the upper end thereof, and support it in the proper position for engaging with the teeth *b*. *k* represents an axial shank or tang cast with the spool, so as to be driven into the curtain-roller, for securing the spool thereto. *l* represents a stop formed on the same side of the spool, so as to project into the groove *a* of the curtain-roller, thereby preventing the tang from turning therein. The depending arm d^1 is so formed that the cord will have an inwardly direction from the spool B to the lower end of the arm, so that upon pulling on the cord the upper end of the pawl D will be swung backward against the stop *h*, thereby disengaging it from the teeth *b* of the spool, and allowing the latter to revolve freely. Upon releasing the cord the weight of the arm d^1 will swing the arm *d* forward against the stop *i*, when it comes in contact with the projection *b*, thereby arresting the descent of the curtain. The teeth *b*, with which the detent-pawl D engages, being arranged on the side of the reel, instead of on the face thereof,

as in ordinary ratchet-wheels, the rim of the reel is perfectly smooth, and the inconveniences resulting from the cord being caught and wound up by the ratchet-teeth is entirely avoided.

The parts of my improved curtain-fixture are readily cast complete, without requiring any drilling of holes or riveting for securing the parts together, and it is, in consequence, produced at comparatively small expense.

I claim as my invention—

1. The combination, with the spool B, provided with laterally-projecting teeth *b*, and bracket C, provided with stops *i* and *h*, of the detent-pawl and depending lever D, pivoted to the bracket so as to swing between the stops *i* and *h*, substantially as shown and described.

2. The combination, with the curtain-roller A, provided with groove *a*, of the spool B, formed with the tang *k* and stop *l*, substantially as and for the purpose hereinbefore set forth.

CHARLES H. MILLER.

Witnesses:
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