

C. CRETORS.  
Curtain-Fixtures.

No. 215,809.

Patented May 27, 1879.

Fig. 1.

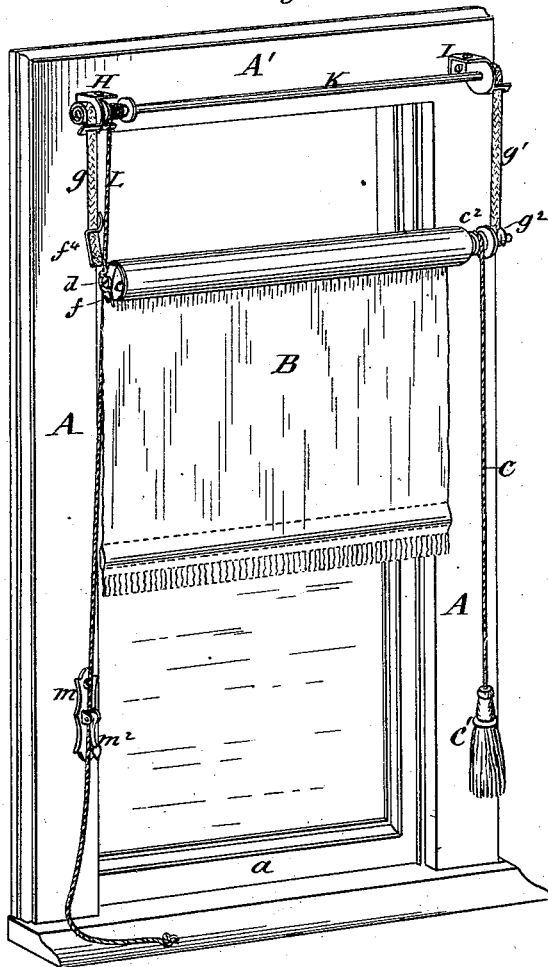


Fig. 2.

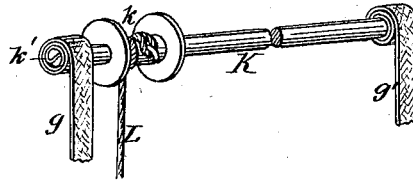


Fig. 3.

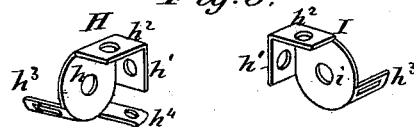


Fig. 4.

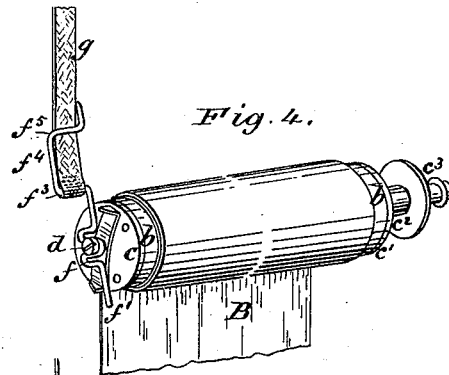


Fig. 5.

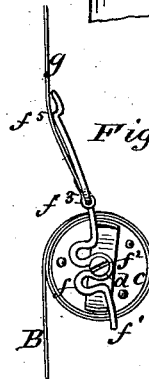
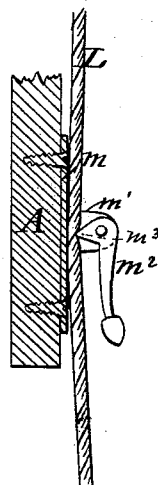


Fig. 6.



Fig. 7.



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# UNITED STATES PATENT OFFICE.

CHARLES CRETORS, OF DECATUR, ILLINOIS.

## IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. **215,809**, dated May 27, 1879; application filed April 29, 1879.

*To all whom it may concern:*

Be it known that I, CHARLES CRETORS, of Decatur, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in Curtain-Fixtures; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents, in perspective, a window-frame provided with my curtain-fixtures. Fig. 2 represents, in perspective, the upper revolving rod, its spool, and tapes. Fig. 3 represents, in perspective, the brackets used in connection with the upper rod. Fig. 4 represents, in perspective, the curtain-roller, with its spring-pawl and spring-ratchet. Fig. 5 represents an end view of the same. Fig. 6 represents, in perspective, the spring-ratchet detached. Fig. 7 represents a sectional view of the cord-retaining clamp.

My invention relates to curtain-fixtures intended to sustain curtains at any variable height or distance from the top of the frame.

The object of my invention is to lower, if desired, the roller upon which the curtain is wound, and to be able to roll it up in any intermediate position between the top and bottom of the window-frame, without any regard to the kind of roller used, as it may be a spring-roller, or a roller wound up with a cord, or a self-roller; and the object of my invention is to produce suitable brackets, a spring-ratchet, spring-pawl, and tape-supports for the above purpose.

Heretofore curtain-fixtures have been adjustably suspended upon cords or tapes passing through screw-eyes secured to the top of window-frames. By this arrangement of cords the curtain-roller is liable to be suspended awry, and the cords are rapidly destroyed by friction in passing through the screw-eyes. Brackets have also been made that could be attached to the interior face or vertical sides of window-frames; but they do not present all the advantages obtained by my construction.

My invention consists in the combination of various parts, that will first be described in

connection with the drawings, and then pointed out in the claims.

In the drawings, A represents the sides, and A' the upper rail, of a window-frame, *a* being the lower window-sash. B represents a window-curtain partly wound upon a roller, *b*. This roller may be one of the various kinds already in use, called "spring-rollers," or a plain roller, as shown in the drawings, and provided with metallic caps *c* and *c*<sup>1</sup>. In this case the cap *c*<sup>1</sup> carries a spool, *c*<sup>2</sup>, upon which is wound the cord C in opposite direction from the curtain B, and by which the latter can be rolled up. In continuation with the axis of the roller there is a spindle, *c*<sup>3</sup>, to support the roller at that end. The cap *c* at the other end is perforated in the center to receive a screw, *d*, that can engage either with the metal of the cap, if the central opening is screw-threaded, or with the wood of the roller, or with both. This screw *d* is used as a pivot for that end of the roller. It also retains against the cap *c* the spring-ratchet *e*. This ratchet is formed of spring brass or steel out of sheet metal, bent in the form of a bow, with its ends *e*<sup>1</sup> flanged outwardly, to form triangles or inclined ways and projections adapted for engagement with the free end *f*<sup>1</sup> of a spring-pawl, *f*. This pawl is preferably formed of spring-wire, bent to form a central eye, *f*<sup>2</sup>, to receive the screw *d*, that passes also through the central opening, *e*<sup>2</sup>, in the spring-ratchet, and secure the two with spring-pressure to the end of the curtain-roller.

The curtain and its roller are adjustably suspended, by means of tapes *g* *g*<sup>1</sup>, in the following manner: Suitable brackets H and I are secured to the window-frame at the required distance apart to suit the width of curtain. They are perforated at *h* and *i*, respectively, to receive the ends of a rod, K, provided with a spool, *k*, permanently secured to its periphery. The ends of the rod are slotted diametrically at *k*<sup>1</sup>, to receive one end of the tapes *g* and *g*<sup>1</sup>, that are thus sufficiently secured to the rod when said tapes are wound a few turns around the rod. The opposite end of the tape *g* is folded over and secured to the upper portion of the spring-pawl *f*, connected to the curtain-roller. For this purpose the wire form-

ing said pawl is bent over at  $f^3$  parallel with the axis of the curtain-roller, and upon said bent portion the tape  $g$  is secured. Furthermore, this wire is bent again to extend at  $f^4$  in a direction nearly parallel with its free end  $f^1$ , and bent again at  $f^5$  parallel with its portion  $f^3$ , so that said portion  $f^3$  will rest against the face of the tape, and present a fulcrum of resistance against the tendency of the curtain-roller to turn over, with the part  $f^3$  as an axis, when the curtain is pulled down to lower it or unwind it from its roller.

The brackets H and I are provided, respectively, with a vertical plate,  $h^1$ , perforated to receive a screw or screws by which they are attached to the face of a window-frame, and with a plate,  $h^2$ , placed horizontally relatively to the plate  $h^1$ , and perforated to receive a screw by which they can be secured to the underside of the top rail of the window-frame. Each bracket is also provided with a slotted guide-plate,  $h^3$ , to receive each of the tapes  $g$  and  $g^1$ , and guide them while being wound upon the rod K. The bracket H is also provided with a guide-plate,  $h^4$ , perforated to receive and guide the cord L upon the spool  $k$  of the rod K. The cord L extends down, and is retained against the weight of the curtain by means of a clamping device formed of a plate,  $m$ , secured to the side of the window-frame, and provided with projecting lugs  $m^1$ , to which is pivoted a lever,  $m^2$ , formed with an eccentric angular extremity,  $m^3$ , to impinge against the cord, and compress it against the plate  $m$ , and retain the curtain at any desired height.

The cord revolving the rod K will roll the tapes  $g$  and  $g^1$  evenly and equally upon each end thereof, without danger of raising the curtain awry.

As regards the rolling and unrolling of the curtain B, if a plain roller, as shown, is used, the cord C may have a weighted tassel,  $C'$ , to partly balance the curtain and relieve the spring-pawl  $f^1$  of a portion of its strain, although it is not absolutely necessary. If it is desired to roll up the curtain, it is done by pulling on the cord C. It will revolve the roller  $b$ , and with it the spring-ratchet  $e$ , the bevel sides of its projections  $e^1$  readily passing the end  $f^1$  of the pawl  $f$ , and when the cord is released the weight of the curtain will have a tendency to revolve the roller in the opposite

direction, bringing the triangular portion of  $e^1$  in contact with the pawl, and is arrested thereby, as shown in the drawings.

When it is desired to unroll the curtain, it is done by simply pulling it down, as from its fringed lower end. The pawl  $f$  will continue to hold the ratchet  $e$  immovable; but said ratchet, being of spring-metal and yielding, will allow the cap  $e$  to slide against it and revolve, and thus the curtain may be unrolled any desired distance, and be retained by the friction exerted by the spring-ratchet  $e$ . This spring-ratchet  $e$  and pawl  $f$  may be placed upon both ends of a curtain-roller, if desired.

This ratchet may be used upon various kinds of rollers and stationary fixtures, in connection with the spring-pawl  $f$ , by attaching the spring-pawl to one of the stationary brackets. The roller-spindle  $c^3$  would then be placed into a stationary bracket, while in the present instance the end  $c^3$  is supported by a hook,  $g^2$ , at the end of the tape  $g^1$ .

Having now fully described my invention, I claim—

1. In combination with the cap  $e$  or end of a curtain-roller, the screw  $d$ , as an axis, and the spring-pawl  $f$ , as a support for one end of said roller, the spring-ratchet  $e$ , bent as shown, and provided with projections  $e^1$  at each end, substantially as and for the purpose described.

2. With a curtain-roller provided with a spring-ratchet,  $e$ , having projections  $e^1$  at each end, the combination of the pawl  $f$ , bent at  $f^3$ ,  $f^5$ , the tapes  $g$   $g^1$ , and rod K, substantially as and for the purpose described.

3. The combination of a curtain-roller provided with a spring-ratchet,  $e$ , having projections  $e^1$  at each end, the spring-pawl  $f$ , bent at  $f^3$ , the tapes  $g$   $g^1$ , inserted into slots  $k'$  of the upper rod, K, the cord L, and clamp  $m^2$   $m^3$ , substantially as and for the purpose described.

4. The combination of a curtain-roller provided with a spring-ratchet,  $e$ , having projections  $e^1$  at each end, the pawl  $f$ , bent at  $f^3$ , tapes  $g$   $g^1$ , rod K, and brackets H and I, provided with perforated plates  $h$  and  $h^1$ , substantially as and for the purpose described.

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Witnesses:

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