J. NESBITT & A. ANDERSON.

Curtain-Roller.

No. 209,771. Patented Nov. 12, 1878.

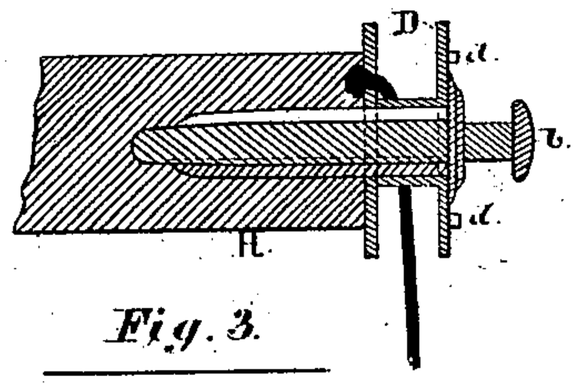

Fig. 3.

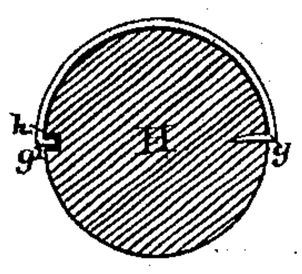

Fig. 5.

Fig. 4.

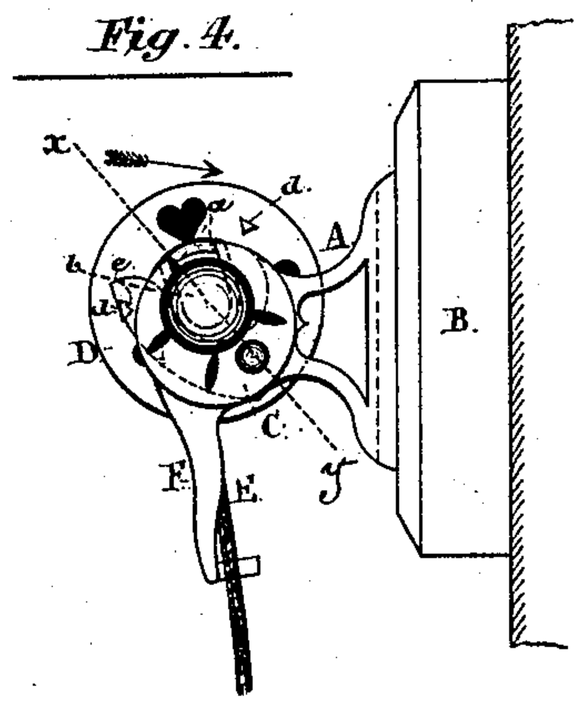

Fig. 1.

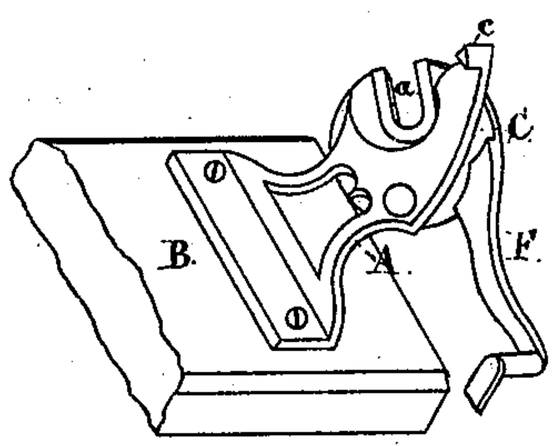

Fig. 2.

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UNITED STATES PATENT OFFICE.

JOSIAH NESBITT AND ALEXANDER ANDERSON, OF TORONTO, ONTARIO, CANADA.

IMPROVEMENT IN CURTAIN-ROLLERS.

Specification forming part of Letters Patent No. **209,771,** dated November 12, 1878; application filed February 25, 1878.

To all whom it may concern:

Be it known that we, JOSIAH NESBITT, of the city of Toronto, in the county of York, Ontario, Canada, machinist, and ALEXANDER ANDERSON, of the same place, accountant, have invented certain new and useful Improvements in Curtain-Fixtures, which improvements are fully set forth in the following specification and accompanying drawings.

Our invention relates more particularly to that class of window-fixtures in which the roller is operated through the action of a single cord; but in addition to this we provide an improved method for attaching the window blind or curtain to the roller.

The invention consists in suspending one end of the roller in a journal formed in a plate or disk eccentrically pivoted to a peculiarly-formed bracket, and in such manner as to cause the weight of the roller to facilitate the engagement of the locking parts. The said plate is provided with an arm, and so arranged that the cord, which is attached to the roller in the usual way, by acting against the said arm tilts the said eccentrically-pivoted plate, which operation moves the roller clear of a stop, as hereinafter described, and permits the said roller to move freely within its journal.

The second portion of our invention consists in a series of semicircular metallic clips attached to the roller in such a manner as to grasp the curtain and hold it within a narrow groove cut parallel with the center of the roller, substantially as hereinafter described.

Figure I is an end view of a roller exhibiting our device. Fig. II is a detail of the bracket with the disk and arm attached. Fig. III is a detail of the reel and center-pin. Fig. IV is a detail of the wooden roller and clips. Fig. V is a detail of the clip.

In the drawing corresponding letters indicate like parts in each figure, and the shapes of such parts are such as we consider appropriate; but, of course, considerable modification and alteration might be made in them without affecting the principle or nature of the invention.

A is a bracket screwed to the window-top B. The disk or plate C is pivoted off its center to the said bracket A, so that it shall lean forward, as shown. *a* is a bearing, made in the disk C to receive the center-pin *b* of the roller. The center-pin *b* is shaped as shown in Fig. 3. Its shank passes through the reel D, and is driven into a hole in the center of the roller. The bearing *a* is wider than the thickness of the plate C. The projection thus formed overlaps the bracket within a circular slot cut in it for that purpose, and when the roller is at rest abuts against the front end of the bracket A, as shown.

On the face of the reel or spool D we place one or more stops, *d*, at such a distance from the center that when the center-pin *b* is set into the journal *a* the said stop *d* will come in contact with the lip *e*—that is to say, so long as the roller is at rest. The cord E is wound upon the reel D in the usual way, and when the curtain is to be raised the cord E is drawn, so as to press out the lever or arm F, which, being attached to or forming part of the eccentrically-pivoted plate C, presses the same back, which action likewise moves the roller D in the direction indicated by arrow till the stop *d* is clear of the lip *e*, when, of course, the roller D will run free, and the curtain can be raised or lowered, as desired.

The dotted line *x y* in Fig. 4 indicates the angular relation which the pivotal center of the disk bears to the center of the curtain-roller, from which it will be seen that the weight of the curtain must be overcome before the disengagement of the locking parts can be effected, and causes the prompt engagement of said parts when the pull on the cord is remitted. This advantageous effect could not be produced by a lever having weight, fulcrum, and power in a right line.

The use of a disk in the relation herein shown has other advantages not possessed by an ordinary lever by reason of the increased area of surface-bearing against the bracket, which gives the disk greater steadiness, and which, in the present case, is increased by the general construction employed.

In relation to the second part of our invention, we would state that G is a metallic clip, formed substantially as shown in Fig. 5. The end *g* is bent and sharpened with the view of driving it into the roller H. The other end, *g'*,

is likewise bent, but not sharpened. The roller H has a narrow slot, *h*, running parallel with its center, into which slot we insert the end of the curtain, which we hold there by any suitable number of clips G, whose ends *g* we drive into the roller H at a point in its circumference the proper distance from the slot *h* to allow the other end, *g'*, to reach and fit into the said slot, thereby holding the curtain therein as desired.

To facilitate the application of the clips, we mark a line upon the roller H the proper distance from the slot *h*.

What we claim as our invention is—

1. The combination of the bracket A, having a circular slot, the eccentrically-pivoted disk C, having a bearing, *a*, forward of the pivot, and a lever, F, and a spool and pin, the bracket and spool being provided with engaging devices, the whole being constructed for operation substantially as described.

2. The following elements in combination, viz: the bracket A, having a circular slot and the lip *e*, the eccentrically-pivoted disk C, having the lever F and a bearing, *a*, forward of the pivot end, provided with a projection which rests in the slot of the bracket A and forms a stop therewith, and the spool D upon its center-pin *b*, the said spool being provided with stops *d*, all arranged substantially as specified.

3. A roller, H, with a slot, *h*, cut in it to receive the window-blind, in combination with metallic clips G, shaped substantially as shown, and for the purpose specified.

Dated 4th day February, A. D. 1878.

JOSIAH NESBITT.
ALEXANDER ANDERSON.

In presence of—
JOHN G. RIDOUT,
DONALD C. RIDOUT.