A. B. SHAW.

Curtain Roller and Bracket.

No. 211,673. Patented Jan. 28, 1879.

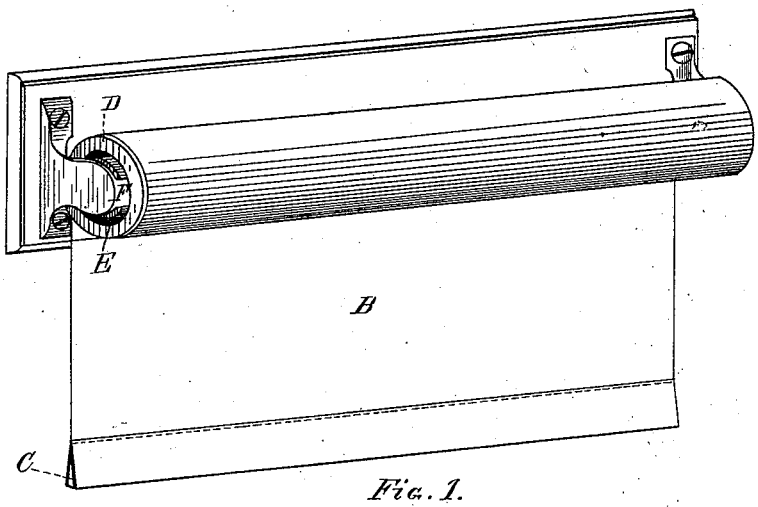

Fig. 1.

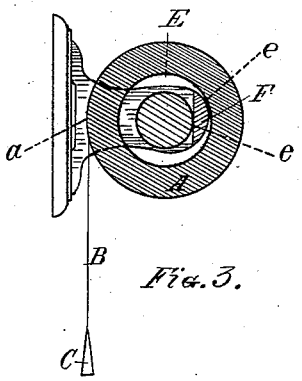

Fig. 3.

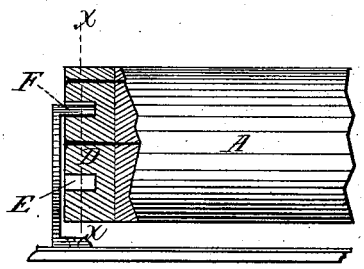

Fig. 2.

Witnesses:

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UNITED STATES PATENT OFFICE.

AI B. SHAW, OF MEDFORD, MASSACHUSETTS.

IMPROVEMENT IN CURTAIN ROLLER AND BRACKET.

Specification forming part of Letters Patent No. **211,673**, dated January 28, 1879; application filed July 8, 1878.

To all whom it may concern:

Be it known that I, AI B. SHAW, of Medford, Massachusetts, have invented an Improvement in Curtain-Fixtures; and that the same is fully described in the following specification, and represented in the accompanying drawings.

My improvement relates to a supporting-bracket for the roller and to a friction device connected therewith, whereby the roller may be automatically held at any desired point in its rotation, so that the weight shall not overpower the spring.

My invention consists in a roller provided with an annular groove in its end, and actuated by a curtain and an internal spring, in combination with a bracket having a projection, substantially as shown, adapted to enter the annular groove in the roller-head as a bearing, and to act frictionally thereon, as will be explained. Both the grooved roller-head and the peculiar bearing therefor are original with me.

In the drawings, Figure 1 is a perspective view of a curtain-roller provided with my improvement; Fig. 2, a plan or top view; and Fig. 3, a transverse section of the grooved head and its bearing through *x x*, Fig. 2.

A is the roller, upon which the shade B is coiled, and within which, at the other end, is the customary operating-spring, arranged in the usual manner, to roll up the curtain when the weighted stick C at the bottom is lifted.

D is a cap, preferably of hard wood, secured to the end of the roller, and provided with a deep annular groove, E, into which fits loosely a projection, F, on the inner face of the bracket. This projection, as shown in Fig. 3, is in the form of a segment of a cylinder, and acts in conjunction with the grooved head to constitute the bearing for this end of the roller to run upon. These parts embody the distinguishing peculiarity of my present invention, since this end of the roller has neither central nor circumferential bearing, and does not revolve about a cylindrical pivot nor within an ordinary socket.

My invention is based upon the fact that the reaction of the spring which rolls up the curtain is a rotary impulse merely, tending to carry every portion of the roller around its axis, while the downward tendency of the weighted shade does not act centrally upon the roller, but is applied at one side of it, and at such a distance from the axis as to create considerable leverage.

With such bearings as I have invented an excess of friction is produced by this leverage sufficient to arrest the downward movement of the shade.

By reference to Fig. 3, which shows the preferred shape and relative position of the parts, it will be obvious that the weight C, suspended from the point *a*, will cause the walls of the groove E to press against the sides of the bearing F with a cramping action, tending to prevent rotation, and requiring some force on the part of the operator to draw the shade downward.

When the weight is lifted the cramping-strain is relieved, and hence the rotary movement of the roller under the action of the spring may be effected with but slight friction, and although the bearing is not coincident with the axis the roller revolves freely thereon.

It will be noticed that there are two bearing-points, *e*, where the walls of the groove press upon the projection F in the downward tendency of the shade—that is, above the center on the outer side and below the center on the inner side of the bearing—from which it is obvious that the intermediate material might be be cut away, if desired, leaving two adjacent projections in place of the one shown.

In brief, the bearing is elongated vertically, and bears upon the opposite walls of the annular groove on that side of the axis of the roller which is opposite to the one from which the shade hangs at *a*.

I claim—

1. The combination of a curtain-roller actuated by an internal spring, and having an annular groove in its end cap, with a bracket having a bearing elongated vertically and adapted to enter the annular groove and act frictionally therein, substantially as described.

2. A roller having an annularly-grooved head, in combination with a bearing permanently located at one side of the axis of the roller, opposite to the point of suspension of the shade, substantially as set forth.

AI B. SHAW.

Witnesses:

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