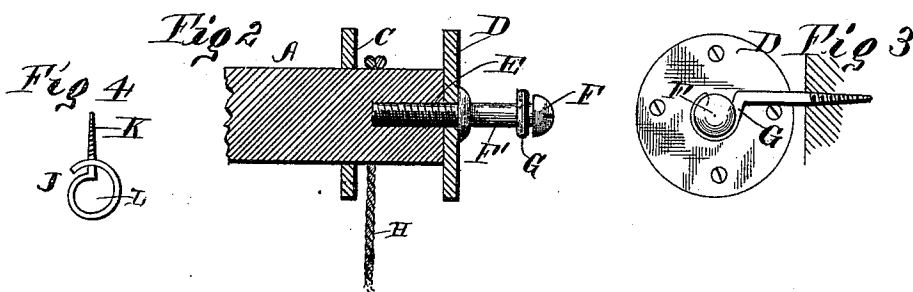
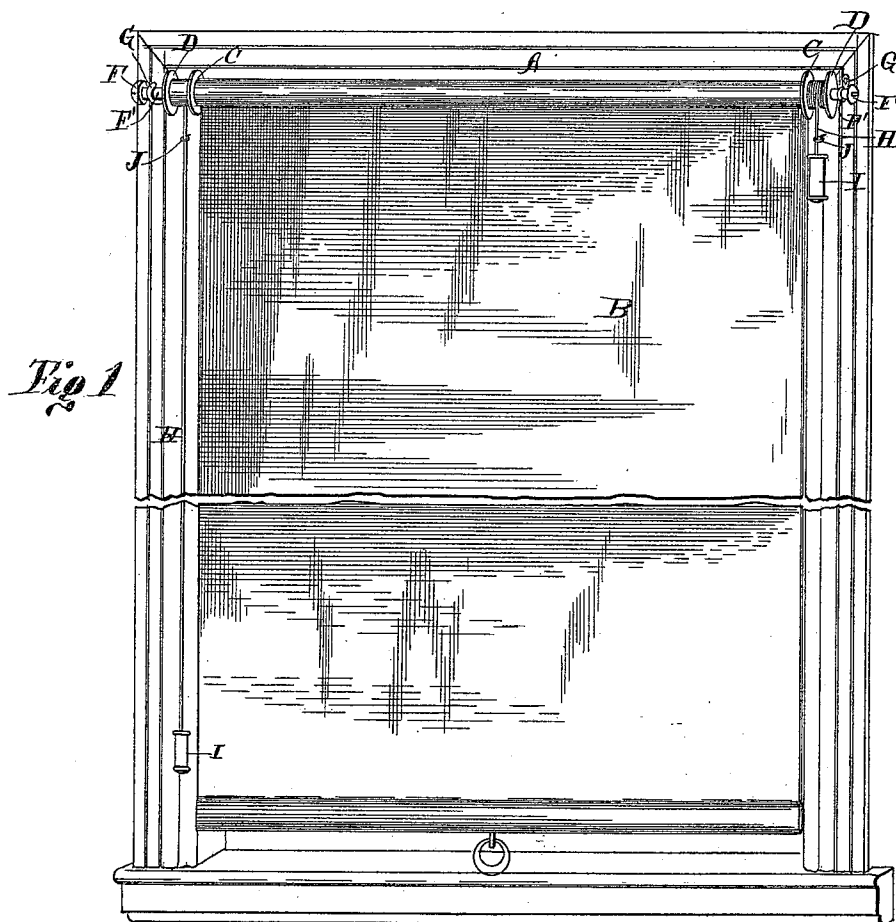


(No Model.)

J. A. TURNER.
SHADE ROLLER.

No. 447,705.

Patented Mar. 3, 1891.



Witness
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UNITED STATES PATENT OFFICE.

JOSEPH ADDISON TURNER, OF PASSAIC, NEW JERSEY.

SHADE-ROLLER.

SPECIFICATION forming part of Letters Patent No. 447,705, dated March 3, 1891.

Application filed July 26, 1890. Serial No. 360,099. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH ADDISON TURNER, a citizen of the United States, residing at Passaic, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Shade-Rollers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention contemplates an improvement in shade-rollers for window-curtains, awnings, &c., and the object sought to be accomplished is to so arrange the parts as to produce a cheap, simple, and effective roller on which the curtain is wound without the use of springs, and can be adjusted at any height desired without loss of time or other inconvenience.

With these ends in view my invention consists in the peculiarities of construction and combinations of parts more fully described hereinafter, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 represents a perspective view of my complete device, showing it applied to a window with the curtain attached; Fig. 2, a longitudinal section through one end of the roller; Fig. 3, an end view, and Fig. 4 a detail view, of one of the open screw-eyes.

The reference-letter A indicates the stick, and B the curtain, which is secured thereto in any suitable manner. On the ends of the stick are placed disks C and D, the inside disks C having central perforations or bores having diameters equal to that of the stick, so that they can be slipped over the same and adjusted thereon to the positions desired, which positions should be near the opposite edges of the curtain, so that said disks will act as guides to keep the curtain straight while it is being wound upon the stick. The outside disks D are fitted against the end of the stick and have central perforations through which extend screws E, passing into the stick, and said screws are provided with heads F, between which and said disks smooth portions F' are left, which act as trunnions for the roller. These trunnions are arranged to have bearings in hooks G, which are driven or screwed into the window-casing at the proper positions, the heads F dropping below

said hooks and preventing lateral movement of the stick. It will be seen that the inside and outside disks form between them spools, and upon the latter the operating-cords H are adapted to be wound. To the lower ends of these cords are attached counterbalancing-weights I, and when the cord on one end is wound upon its spool the other cord is distended its full length, which arrangement is effected by first winding one cord on the stick and then attaching the end of the other cord to the opposite spool.

Screw-eyes J are fastened into the casing just below the spools, and each consists of a screw portion K and an open eye L, one end of which passes the other, as seen more clearly in Fig. 4, so that the cord can be inserted through it at the side without the necessity of removing the weight.

When constructed as thus described, the operation of the roller will be as follows: After the disks, screws, hooks, and screw-eyes have been adjusted, as previously described, and the cords and weights attached it will be seen that upon pulling down the cord which is wound upon the stick the latter will be revolved and the curtain wound upon it and drawn up to the desired adjustment; but at the same time the opposite cord will be wound upon the opposite end of the stick, and hence the weight on its lower end will be drawn up and will counterbalance the opposite weight, and hence the curtain will be held at the position to which it has been brought.

The office of the screw-eyes J is to keep the cords between the latter and the spools straight and perpendicular, so that they will wind evenly upon their respective spools, although the draft upon them is not straight down.

The curtain can be arranged to roll up at the bottom in the same manner, being held up by a cord which runs over a pulley attached to the window-frame, and is provided with a suitable weight, and my device can be likewise applied to an awning by passing the cord through a suitable aperture in the casing, so that it can be manipulated from the inside of the house.

The weights are adjusted according to the weight of the curtain and so counterbalanced that when the draft of the cord ceases the

curtain stops and remains in the position to which it has been brought, thus saving the time and trouble usually experienced in working a spring-roller, and, moreover, by dispensing with springs the device is rendered more durable, as a spring is likely to break and render the whole device inoperative.

It is evident that my arrangement of parts might be varied in many slight ways which would naturally suggest themselves to a skilled mechanic, and hence I do not wish to confine myself to the precise construction herein shown, but consider myself entitled to all such slight variations as come within the scope and spirit of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination, with a roller, bearings in which it is adapted to freely revolve, and a curtain secured to the roller, of cords secured one at each end thereof and each being wound thereon in a direction opposite to the other, and a counterbalancing-weight attached to each cord, either of which weights is adapted to ascend while the other descends in the raising and lowering of the curtain, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH ADDISON TURNER.

Witnesses:

WM. J. WORRELL,
ISAAC E. BOGART.