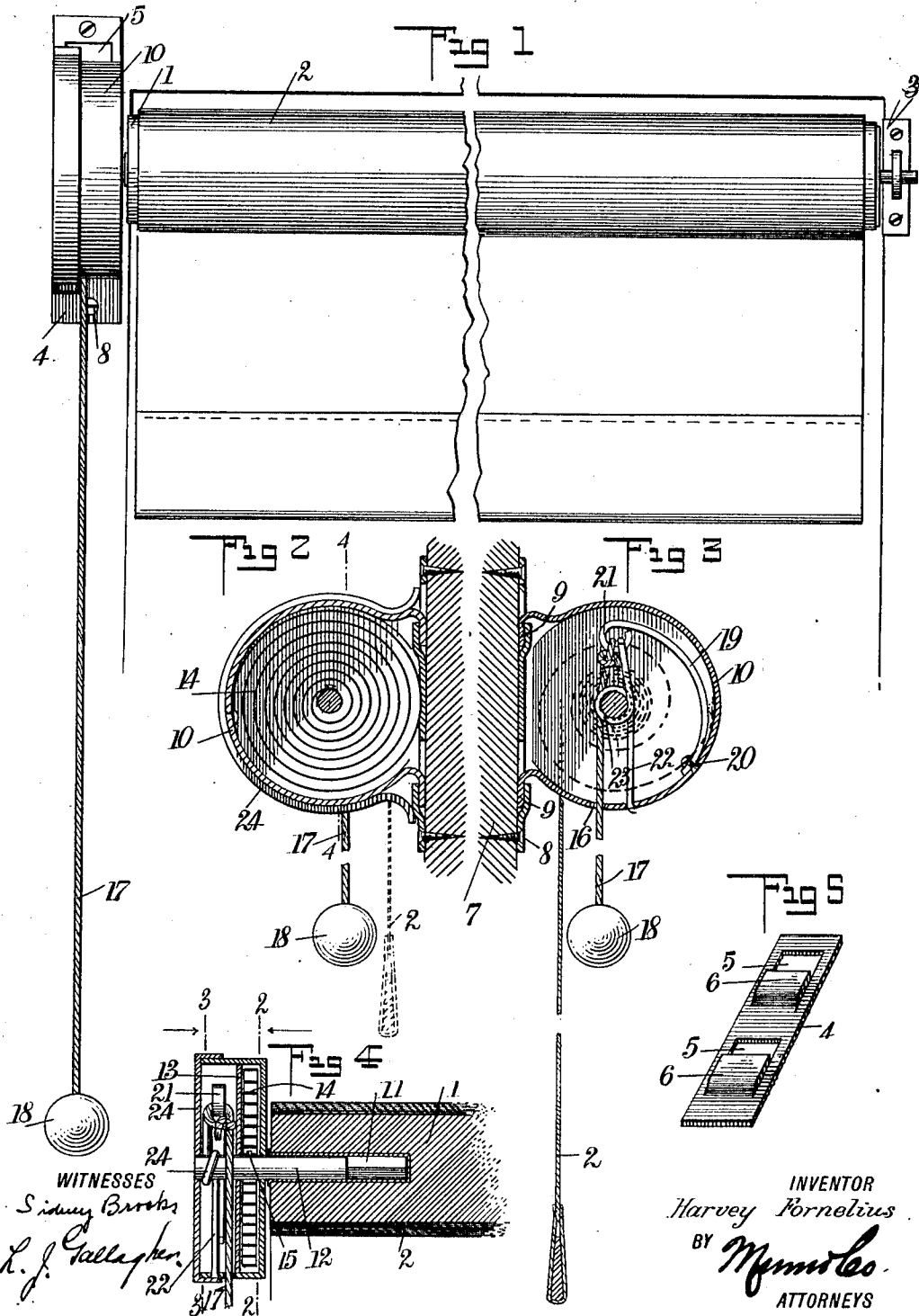


H. FERNELIUS.
SHADE ROLLER APPLIANCE.
APPLICATION FILED AUG. 10, 1911.

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Patented Mar. 19, 1912.



UNITED STATES PATENT OFFICE.

HARVEY FORNELIUS, OF ATHENIA, NEW JERSEY.

SHADE-ROLLER APPLIANCE.

1,020,817.

Specification of Letters Patent.

Patented Mar. 19, 1912.

Application filed August 10, 1911. Serial No. 643,333.

To all whom it may concern:

Be it known that I, HARVEY FORNELIUS, a citizen of the United States, and a resident of Athenia, in the county of Passaic and State of New Jersey, have invented a new and Improved Shade-Roller Appliance, of which the following is a full, clear, and exact description.

The object of my invention is the provision of an improved braking device adapted for use with a roller whereby the shade may be maintained in any position desired throughout the length of the window.

A further object of my invention is to provide an improved device of the class described embodying the features heretofore pointed out which will consist of the fewest number of parts, thereby enabling it to be produced at a low cost.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a front view of a shade roller in position with my device in operative relation thereto; Fig. 2 is a sectional view on the line 2—2 of Fig. 4; Fig. 3 is a sectional view on the line 3—3 of Fig. 4; Fig. 4 is a sectional view along the line 4—4 of Fig. 2; Fig. 5 is a perspective view of the bracket to which my device is attached.

The roller 1 which is adapted to hold a shade 2 is provided adjacent its ends with suitable supports whereby it may be rotatably held in position, one of these supports embodying a form well-known in the art.

The other support which is shown particularly in Figs. 4 and 5 embodies a bracket 4 which is made up of a body member having openings 5 therein, portions of the body member adjacent the openings being bent out of their normal plane in order to form tongues 6. The bracket 4 is adapted to be positioned on a window casing 7 adjacent the top thereof by any suitable means such as screws 8, as shown particularly in Figs. 2 and 3, the openings 5 together with the tongues 6 forming pockets adapted to receive the over-turned ends 9 of a casing 10 which contains my improvement.

As shown particularly in Fig. 4 one end of the roller 1 is provided with a suitable cavity 11 adapted to receive a spindle 12 which spindle extends beyond the end of the roller and into the aforesaid casing 10.

This casing is preferably divided into a plurality of compartments by means of a partition 13, one compartment being adapted to contain a flat spiral spring 14, one end of which is attached to the spindle, as at 15, the other end being secured to the casing in any suitable manner. The spring is adapted to be wound up by turning the roller 1 in one direction which is determined by pulling down the shade 2, the energy present in the wound spring being used to return the roller to its first position with the shade wound thereon.

The second compartment of the casing has an opening 16 formed in its lower side in order to permit a cord 17 to pass there-through, the cord being provided with a suitable tassel 18 at its lower end, if so desired. This compartment is provided with a leaf spring 19 which is secured at 20 to the side wall thereof in any suitable manner, the free end of the spring being provided with any suitable means such as a hook 21 to which the end of the aforesaid cord 17 is secured. One end of another cord 22 which is also contained within this second compartment is secured to the side wall thereof, the other end of this cord being secured to the afore-mentioned hook 21 at the free end of the spring 19, the intermediate portion of the cord 22 being wrapped around the spindle 12 as at 23, shown particularly in Figs. 3 and 4.

The casing is preferably provided with a cover 24 in order to keep out dust and dirt from the interior thereof as well as to provide a finished appearance to the device.

As previously mentioned the spring 14 is so positioned in the first compartment that drawing down on the shade 2 will turn the roller in one direction whereby this spring is wound; during the act of drawing down the shade the cord 17 is pulled slightly down in order to flex the spring 19 in the second compartment of the casing, thereby permitting the spindle 12 at one end of the roller to freely turn within the loop 23 of the second cord 22; the shade may be retained at any point throughout its travel by merely releasing the downward pull on the cord 17, thereby permitting the spring 19 to move upwardly and bring the loop 23 of the cord 22 into close engagement with the spindle 12. In order to quickly wind up the shade it is simply necessary to pull down on the cord 17 whereby the pressure

of the loop on the spindle 12 is released, the energy present in the spring 14 then turning the roller and winding the shade thereon.

5 Each casing 10 may be secured in proper position adjacent the window in any suitable manner, the simplest means, however, being by the use of the bracket which I have previously described, it being understood, 10 however, that the use of this particular form of bracket is not essential.

From the above description taken in connection with the accompanying drawings it will be noted that I have provided a shade 15 roller having a new and improved means for holding it in any determined position whereby the shade may be held at any desired point along the length of the window, the construction and arrangement affording 20 a simplified device for this purpose.

Of course it is obvious that various changes as to size, shape, and form, as well as different choice of materials may be exercised without departing from the spirit 25 and scope of my invention.

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

30 1. In combination with a roller and a spring for winding it up, a looped cord in engagement with the spindle of the roller, there being a spring in engagement with one end of the cord for holding it close to the spindle, and other means engaging the 35 spring whereby movement of the spring will release the tension on the cord, thereby permitting the roller to turn.

2. In combination with a roller and a spring for winding it, another spring having a cord secured thereto and engaging the 40 spindle of the roller for holding it against rotation in any position, and a cord engaging the spring for moving it in order to permit the first cord to be loosened thereon, whereby the roller may turn.

45 3. As a new article of manufacture, a casing having a spindle therein, the spindle being adapted for engagement with a shade roller, a spring engaging the casing and also the spindle whereby the roller may be 50 wound up, together with a cord within the casing and engaging the spindle for holding the spindle against turning.

4. As a new article of manufacture, a casing containing a spindle rotatably 55 mounted therein, the spindle being adapted for connection with a shade roller, a spring within the casing and engaging the spindle and adapted to wind up the roller, a cord 60 having a portion thereof wrapped around the spindle in order to hold it against rotation in any position, resilient means maintaining the cord in such engagement, and other means for moving the resilient means 65 whereby the cord may be released and the spindle may turn.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HARVEY FORNELIUS.

Witnesses:

JOHN FORNELIUS,
CHAS. F. H. JOHNSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."