T. M. ANDERSON, Sr. & T. M. ANDERSON, Jr.

WINDOW SHADE ROLLER.

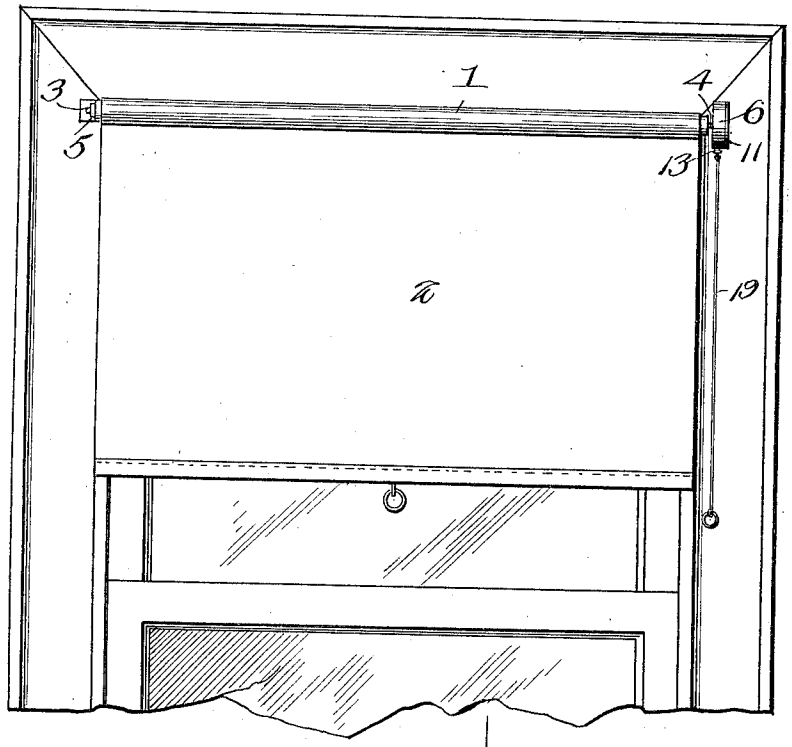
APPLICATION FILED JULY 13, 1912.

1,067,708.

Patented July 15, 1913.

2 SHEETS—SHEET 1.

Fig. 1.



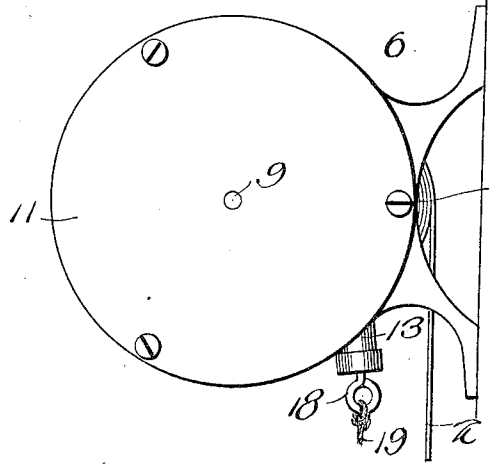


Fig. 2.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

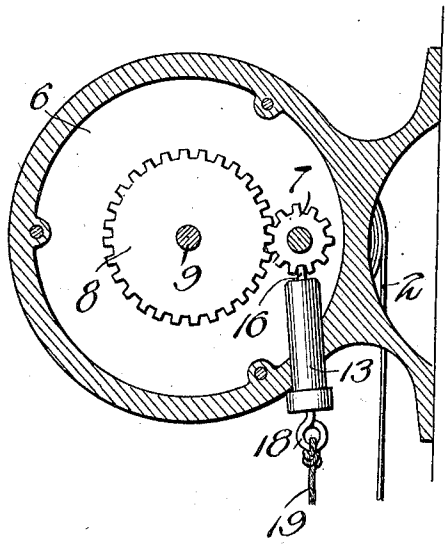


Fig. 4.

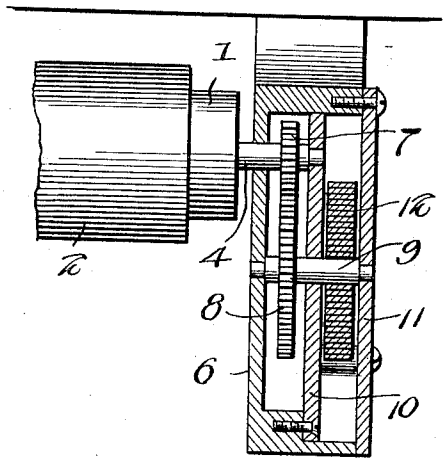


Fig. 6.

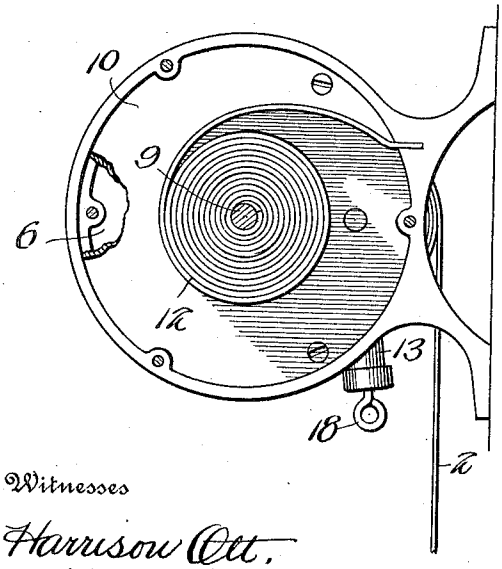
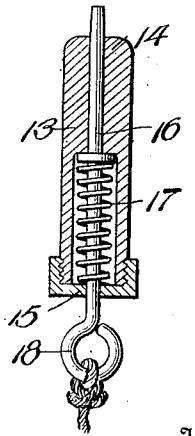


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

TOM M. ANDERSON, SR., AND TOM M. ANDERSON, JR., OF MORRISTOWN, TENNESSEE.

WINDOW-SHADE ROLLER.

1,067,708. Specification of Letters Patent. Patented July 15, 1913.

Application filed July 13, 1912. Serial No. 709,175.

To all whom it may concern:

Be it known that we, TOM M. ANDERSON, Sr., and TOM M. ANDERSON, Jr., citizens of the United States, residing at Morristown, in the county of Hamblen and State of Tennessee, have invented new and useful Improvements in Window-Shade Rollers, of which the following is a specification.

This invention relates to window shade rollers, the object in view being to provide simple and reliable mechanism for winding the shade upon the roller and locking the mechanism against operation at any point of adjustment of the shade.

One object of the invention is to do away with the spring usually contained within the body of the roller itself and substitute therefor a stout and reliable spring which is associated with the roller exteriorly thereof, and combined with one of the supporting brackets, by which the roller is secured in position on the window frame.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts, as will be hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the claims hereunto appended.

In the drawings: Figure 1 is a front elevation of a curtain shade roller, showing the present invention applied thereto. Fig. 2 is an end view of the bracket containing the winding mechanism. Fig. 3 is a longitudinal section through said bracket. Fig. 4 is a cross section taken in line with the shaft and spindle. Fig. 5 is a detail longitudinal section through the plunger lock. Fig. 6 is a side elevation of the combined bracket and housing with the adjacent plate removed.

Referring to the drawings, 1 designates a window shade roller, and 2 the shade wound thereon. In carrying out the present invention, said roller is provided at its opposite ends with spindles 3 and 4, each of which extends beyond the end of the roller and has a fixed relation thereto, one of said spindles 3 being mounted in an ordinary bracket 5 secured to the window casing, while the spindle 4 at the opposite end of the roller passes through the adjacent side wall of a combined cylindrical housing and bracket 6 also secured fixedly to the window frame.

Within the housing 6 and fast on the end of the spindle 4 is a pinion 7 which meshes with and is driven by a gear wheel 8 having a stud shaft 9 which passes through a partition wall 10 within the combined housing and bracket, and also through the outer end wall 11 thereof, said inner wall 10 being also provided with an opening to receive the spindle 4, thereby providing two points of bearing for said spindle 4 at opposite sides of the pinion. Between the outer wall 11 and the intermediate wall or partition 10, there is arranged a coiled spring 12, one end of which is secured to the spindle 4, the opposite end being secured to the interior of the housing in which it is contained, so that said spring is utilized, when wound, to impart rotary motion to the shade roller.

Extending through the bottom of the cylindrical housing 6 is a plunger lock, embodying a small cylindrical casing 13 having openings in the opposite ends or heads 14 and 15 thereof to admit of the back and forth movements of a plunger lock 16. Within the casing, this plunger lock has a shoulder, against which bears a spring 17 which normally holds the inner extremity of the plunger lock in engagement with the pinion 7, so as to prevent the same from rotating. At its outer end, the plunger lock is provided with an eye 18 adapted to receive an operating cord 19 which extends down within convenient reach of the operator, who, by grasping and pulling said cord, may release the gear wheel and permit the spring to act on the roller to wind the shade up thereupon.

In operating the shade, it is only necessary to pull down upon the releasing cord 19, after which, by grasping the bottom edge of the shade, the latter may be either drawn down or allowed to be wound upward by the action of the spring in the combined housing and bracket, hereinabove described. When the shade has been adjusted to the desired point, the cord 19 is released, and the plunger lock thereupon engages the gear wheel and prevents further action of the winding spring.

What is claimed is:

1. A curtain shade roller, a spindle projecting from one end of said roller and having a fixed relation thereto, a spur pinion fast on said spindle, a spur gear wheel meshing with said pinion, a roller winding coiled spring operating on said gear wheel, a

spring pressed plunger lock for holding and releasing said pinion, and a pull cord attached to said plunger lock.

2. A curtain shade roller, a spindle projecting from one end of said roller and having a fixed relation thereto, a combined housing and bracket in which said spindle is journaled, a pinion fast on said spindle within the housing, a gear wheel meshing with said pinion, a coiled spring for revolving said gear wheel, a partition wall for said housing between the spring and gear wheels provided with bearings for the spindle and gear wheel shaft, a spring pressed plunger lock working through the wall of the housing for holding and releasing said pinion, and a pull cord attached to the plunger lock.

In testimony whereof we affix our signatures in presence of two witnesses.

TOM M. ANDERSON, Sr.
TOM M. ANDERSON, Jr.

Witnesses:
H. M. Taylor,
Jas. R. Forgey.

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