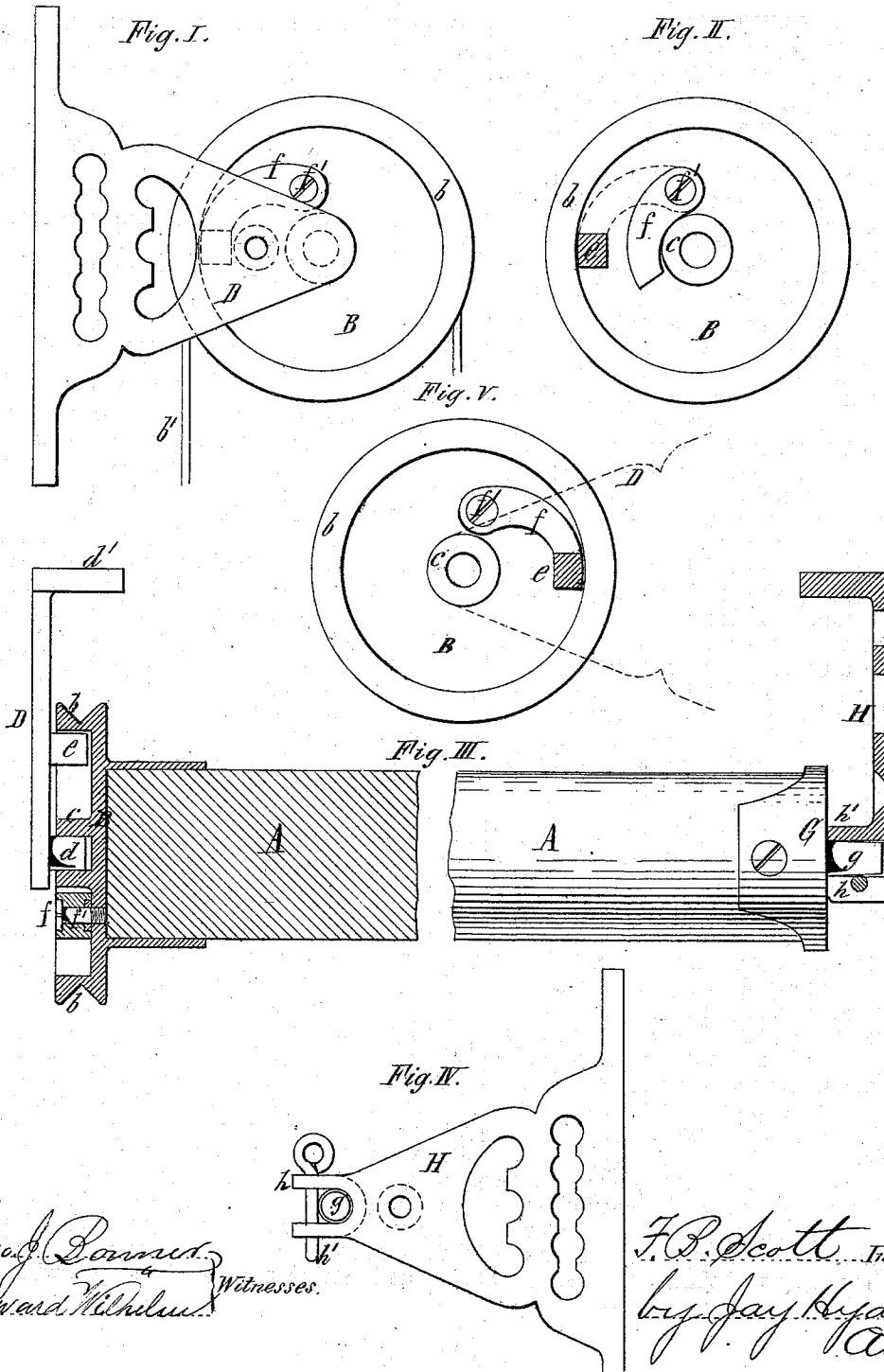


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Improvement in Curtain-Fixtures.

No. 127,274.

Patented May 28, 1872.



UNITED STATES PATENT OFFICE.

FRANCIS B. SCOTT, OF LANCASTER, NEW YORK.

IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. 127,274, dated May 28, 1872.

SPECIFICATION.

I, FRANCIS B. SCOTT, of the town of Lancaster, in the county of Erie and State of New York, have invented certain Improvements in Curtain-Fixtures, of which the following is a specification:

Previous to my invention an automatic gravity-pawl, pivoted to the end of the curtain-roller, and engaging with ratchets or stops on the adjacent face of the bracket which supports the end of the roller, has been employed in supporting window-shades. In these devices the pawl and stop have been so arranged that when the roller was rapidly rotated in rolling up or unrolling the curtain the pawl would be thrown outward by centrifugal force so as not to engage with the stop, while with a slower movement of the roller the centrifugal force is insufficient to overcome the weight of the pawl, which, in such case, falls inward by gravity, and engages with the ratchets and arrests the movement of the shade.

My improvements are designed more particularly for heavy shades, in which the ordinary endless cord is an insufficient or an insecure means for arresting and supporting the shade, especially in lowering the same. A heavy shade, when not checked in unwinding, acquires such momentum as to cause serious injury to the fastenings by the sudden stoppage of the movement when the shade has become entirely unwound from the roller.

My invention consists of a gravity-pawl pivoted to the end of the roller, and arranged with a stop on the face of the roller-supporting bracket in such a manner that when the roller in unwinding the shade rotates with sufficient rapidity to cause the centrifugal force to counterbalance the gravity of the pawl, the latter will be thrown outward and engage with the stop and arrest the descent of the shade, while with a slower movement of the roller the gravity of the pawl will cause it to fall inward so as to pass the stop, as it is brought adjacent thereto, by the rotation of the roller, without engaging therewith or arresting the descent of the shade.

In the accompanying drawing, Figure I is an end elevation of the pulley of the curtain-roller and supporting bracket, showing the safety-pawl engaged with the stop. Fig. II is an elevation of the pulley with the stop in section,

representing the safety-pawl resting on the hub of the pulley so as to pass by the stop. Fig. III is a partly sectional top-plan view of a curtain-roller provided with my improvements. Fig. IV is an elevation of the other supporting-bracket. Fig. V is an elevation of the pulley, with the pawl and bracket reversed, the latter being indicated by dotted lines.

Like letters designate like parts in each of the figures.

A represents the roller to which the shade is attached, and upon which it is wound in elevating it. B is the end plate, secured to one end of the roller A; it is cast with the pulley *b* for the endless cord *b'* and a hub, *c*, for the reception of the journal *d*, which is shown in the drawing cast with the supporting bracket. The rim of the plate B, in which the groove *b* is formed, projects outward beyond the face of the plate, so as to be flush with the hub *c*, as clearly shown in Fig. III. D is the bracket, provided with a journal, *d*, and forming the support of that end of the curtain-roller to which the plate B is attached; it is constructed with a flange, *d'*, for securing it to the window-case by screws in the usual manner. *e* is a projecting lip or stop, arranged on the bracket D in a horizontal line through the center of the journal *d*, at such a distance therefrom as to nearly touch the inner edge of the projecting rim of the plate B. It projects into the annular space or recess between said rim and the hub *c* of the plate B, so as to nearly come in contact with the face of the latter, as clearly shown in Fig. III. *f* is a stop-pawl, arranged on the face of the plate B in the annular recess between its rim and the hub; it is pivoted to the plate B near the latter by a screw, *f'*, so as to play freely on the same.

The operation of this part of my invention is as follows: When the shade is slowly lowered by means of the endless cord *b'*, the pawl *f*, before reaching the stop *e* of the bracket, drops down so as to rest on the hub *c* of the plate B, as clearly shown in full lines, Fig. II, and passes by the stop *e* in this position without impeding the movement of the curtain-roller. When the shade is lowered with considerable speed, by accident or inadvertence, the pawl *f* is thrown out by the centrifugal force against the projecting rim of the plate B so as to strike against the stop *e*, whereby

the movement of the curtain-roller is instantly arrested; hence, it is evident that the shade can only be lowered at a perfectly safe speed.

In small curtain-fixtures the projecting rim of the plate B is dispensed with, and the outward movement of the pawl *f* limited by a square shoulder formed on its pivoted end, or in any other suitable manner.

G is the plate, attached to the other end of the curtain-roller A; it is constructed with a journal, *g*, but without the usual circular flange on its edge, so that the shade can be nailed to the roller A to within a very short distance from the edge of the plate G. H is a bracket, forming the support for this end of the curtain-roller; it is provided with a bearing, *h*, consisting of two horizontal jaws, open at the front for the introduction of the journal *g*, which latter is retained in the bearing by a locking-pin, *h'*, passing vertically through both jaws, as clearly shown in Fig. IV. The bearing *h* projects inwardly from the web of the bracket toward the plate G, as shown at *h'*, Fig. III. This construction enables the edge of the curtain to project beyond the edge of the plate G without coming in contact with the bracket, thereby maintaining the edge of the curtain smooth and unruffled. The brackets D and H are constructed symmetrical on both sides of their horizontal center lines,

whereby they are enabled to be used as right or left hand brackets, as may be desired. The pawl *f* is constructed with a countersink on each side for the head of its pivot *f'*, so as to be likewise reversible, the face of the plate B being cast with a small projecting hub, as shown in Fig. III, which fits in the countersink of the pawl, whereby the friction of the latter on the plate B is greatly lessened.

In Fig. V the pawl *f* and bracket D are shown reversed, the latter being indicated by dotted lines.

The operation of hanging window-shades is greatly simplified by making the parts reversible, as it is not necessary for the operator to have two sets of brackets on hand, as was formerly the case.

I claim as my invention—

The combination, with a curtain-roller and supporting-bracket, of the gravity-pawl *f* and stop *e*, when arranged so that the pawl will be actuated by centrifugal force in engaging with the stop, and be released by gravity, and caused to pass by the stop without engaging therewith when the centrifugal force is reduced, substantially as hereinbefore set forth.

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Witnesses:

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