W. F. HURRELL, Jr.

Curtain Roller and Bracket.

No. 200,304. Patented Feb. 12, 1878.

Fig. 1.

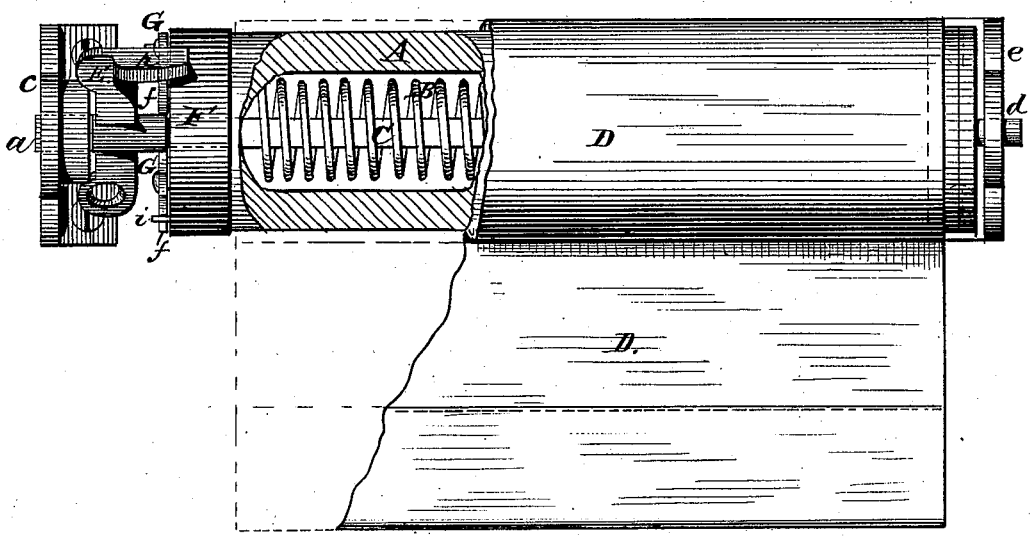


Fig. 2.

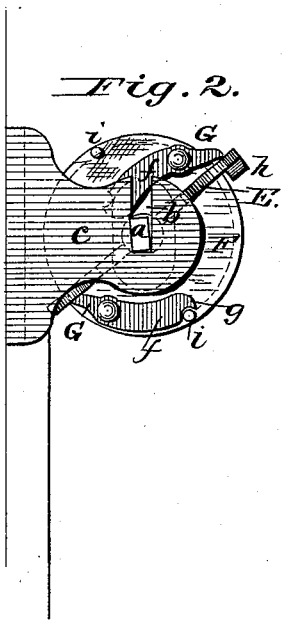
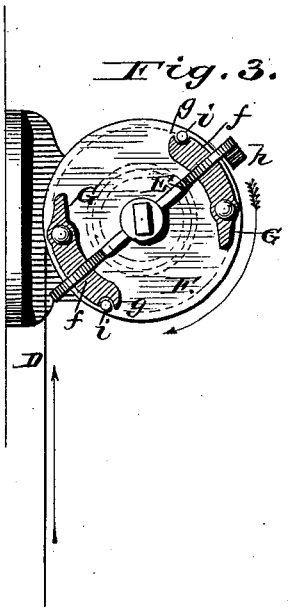


Fig. 3.



Attest

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UNITED STATES PATENT OFFICE.

WILLIAM F. HURRELL, JR., OF CINCINNATI, OHIO.

IMPROVEMENT IN CURTAIN-ROLLERS AND BRACKETS.

Specification forming part of Letters Patent No. **200,304**, dated February 12, 1878; application filed December 28, 1877.

To all whom it may concern:

Be it known that I, WILLIAM F. HURRELL, Jr., of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Curtain-Fixtures, of which the following is a specification:

This invention relates to that class of curtain-fixtures embracing a hollow roller containing a coiled spring for automatically winding up the curtain or shade when desired, and stops for holding the roller and curtain in any adjustable position.

The object of the present invention is to provide a simple and very efficient and reliable spring curtain-fixture, wherein the spring can be conveniently wound up to adjust its tension, and the stops are so constructed and arranged as to act upon a device which not only serves as a key to wind up or adjust the spring, but as an abutment for the stops to bear against, in order to hold the roller when the curtain is unwound.

To this end my invention consists in providing the end of the spindle of the roller to which the coiled spring is attached with a rigidly-fixed T-shaped end or key, and the end of the roller with a cap, to the exterior of which are pivoted two pawls, adapted to engage with the said key, and having extensions beyond their pivotal points of a greater size or weight than the ends which act as pawls, whereby the latter ends are brought into position to engage the key on the end of the spindle when the curtain is permitted to wind up slowly; but when allowed to run up rapidly, the heavy ends of the pawls are, by centrifugal force, thrown outward and fly past the key, and the curtain can be entirely wound up.

In the accompanying drawings, Figure 1 represents a side elevation, partly in section, of my invention; Fig. 2, an end view, showing the roller in the bracket; and Fig. 3, an end view with the bracket removed, showing the position the pawls or stops assume when the curtain is permitted to run up rapidly.

The letter A represents an ordinary curtain-roller; B, the inclosed spiral spring for automatically winding up the curtain; C, the spindle of the roller, and D the curtain or shade. The end of the spindle which projects from one end of the roller is provided with a T-shaped end, E, which not only serves as a stop for the pawls hereinafter described, but also as a key by which the spindle can be turned in order to wind up the spring, or to regulate its tension. The squared or angular end *a* of the spindle rests within a slot, *b*, in the bracket *c;* and the other end of the roller is provided with short journal *d*, which sits within an opening in the bracket *e*, as usual.

The letter F represents a flanged cap attached to the end of the roller, and through the center of which the spindle C passes; and near the periphery of the exterior portion of said cap are pivoted two pawls, G G, which are constructed with long extensions or weighted ends *f*, having recesses *g*, the object being that when the curtain is adjusted and permitted to run up slowly, when one of the pawls reaches the position shown in the upper part of Fig. 2, the said extended end *f*, being heavier than the front or pawl end G, will drop, and cause the latter end to engage with a laterally-projecting arm, *h*, on the winding-key E, thus holding the curtain-roller and its shade in such position.

When, however, it is desired to wind the curtain up, it is permitted to run very rapidly, when the centrifugal force will throw the extended ends *f* outward, as shown in Fig. 3, and thus the pawl ends fly past the laterally-projecting arm *h* of the key, and the curtain can be wound up to the desired position, when it is stopped and permitted to run, and one of the pawls will engage said arm *h*, as hereinbefore stated. The extended ends *f* of the pawls are limited in their movement, when thrown outward by centrifugal force, by providing near the periphery of the cap F small lugs or studs *i*, against which the recessed ends *g* bear.

It will be observed that the roller can be removed from its brackets without liability of the coiled spring unwinding; and, furthermore, that provision is made, through the medium of the T-shaped key E, for conveniently winding up the spring or adjusting or regulating its tension, which is an important feature of my invention; and it will also be seen that, besides the arrangement being such that the pawls are perfectly reliable in their operation, the construction is very simple, and curtain-fixtures made according to my invention can be manufactured very reasonably.

Having now fully described my invention, what I claim is—

1. The combination, with the spindle and coiled spring, of a key rigidly fixed in the end of the spindle, and provided with a projection, *h*, serving as a stop for pawls on the end of the roller.

2. In combination with the spring-roller, a cap, F, attached to the end of the same, the pawls G, pivoted near the periphery of said cap, and having extended or weighted ends *f*, and the T-shaped head on the end of the spindle C, serving as a stop for the pawls, and as a key for winding up the coiled spring or adjusting and regulating its tension, substantially as described.

3. The cap F, attached to the end of the spring-roller, and having the studs *i* and the pawls G, provided with extensions or weighted ends *f*, in combination with the T-shaped key E, attached to the end of the spindle C, and having a laterally-projecting arm, *h*, substantially as and for the object set forth.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

WILLIAM F. HURRELL, JR.

Witnesses:
H. E. RANDELL,
W. E. BRUNSMAN.