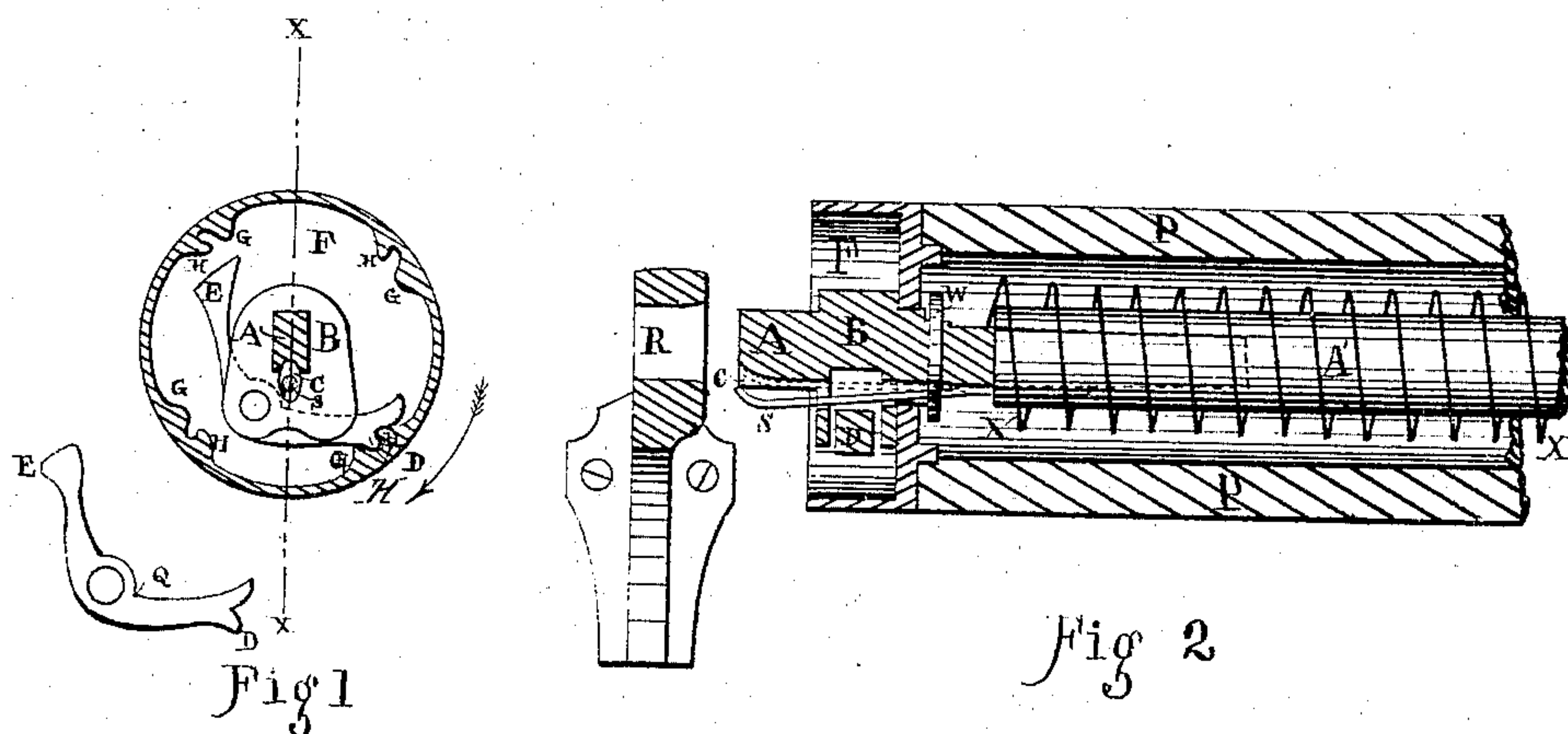


C. E. FRITTS.  
Curtain-Fixtures.

No. 138,493.

Patented May 6, 1873.



Witnesses

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# UNITED STATES PATENT OFFICE.

CHARLES E. FRITTS, OF ONEONTA, NEW YORK, ASSIGNOR TO JOSEPH S. FRITTS, OF SAME PLACE.

## IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. **138,493**, dated May 6, 1873; application filed January 3, 1873.

*To all whom it may concern:*

Be it known that I, CHARLES E. FRITTS, of Oneonta, in the county of Otsego and State of New York, have invented a new and useful Improvement in Curtain-Fixtures; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents an end view of my improvement in curtain-fixtures applied to a spring-shade roller. Fig. 2, is a sectional side view of the same taken in the line *xx* of Fig. 1.

This invention relates to a new stop-work for curtain-fixtures, which is so arranged that the curtain can be retained at any desired height by a slow motion, or can be freely moved up and down by a quick motion, which will automatically regulate its own speed when it escapes from the hand, and will stop itself when removed from the bracket. The invention consists in a new arrangement of pawl and ratchet, a new spindle, a spring to act on the pawl, and suitable construction and arrangement of the connecting parts, as herein-after more fully described.

A represents a metallic spindle, whose outer end is flattened, and fits into a slot in the bracket R, by which it is prevented from turning. At B it is enlarged, and has a slot in the lower part to receive the pawl D E, pivoted at the center. A is cylindrical where it passes through the end plate F, which revolves freely upon it, but is kept in its place by the shoulder of B and the washer W. The pawl D E is so constructed that the lip D naturally falls by gravity into the notches of the ratchet. F is the end plate, rigidly attached to the roller, with a hollow cylindrical extension, on the inside of which are formed projections G and H. The ratchet consists of these projections and the spaces between them. X is a spiral spring within the hollow curtain-roller P, one end being attached to the spindle A, the other to the roller P. Pulling the curtain down winds up the spring X, which tends to pull back the roller in the direction of the arrow in

Fig. 1. If the roller is allowed to turn back slowly, when the pawl D comes to a notch it will fall in and lock the roller; but when turned back briskly the lip D is thrown up by the inclined projection G and passes over the notch without catching. When the roller moves in the opposite direction, the projection H serves the same purposes as G; thus the roller can be turned freely in either direction by a brisk motion, or can be held at any point by slacking the speed at the desired height, when D will drop and lock it. The spindle A is driven into a wooden rod A', which is in effect a continuation of the same. On the under side of A, and through B, is a groove or slot, C, to receive a spring, S, and allow it motion up and down. This spring is fastened at its inner end in any convenient manner, and naturally stands as shown in Fig. 2; but when the spindle A is forced into the flaring mouth of the slot in the bracket R, S is brought up to the position shown by the dotted line, and ceases to have any effect on the pawl D as long as A remains in the bracket; but if A is removed from the bracket without locking the roller, S would be released, would press on the pawl D E at the point Q in Fig. 1, (where only a slight motion of the spring S is required), prevent the end D from flying up, and cause it to catch in the next notch and lock the roller, thus retaining the spiral spring X at the same strength that it was adjusted to instead of allowing it to run down and entirely unwind itself.

I do not confine myself to the precise forms shown, but employ any equivalent form embodying the same principles. The notches in the ratchet F may be of any desired number. Very slight projections G and H are sufficient. Part of the notches may have projections before and after them; and part may be without them, having a plain circular surface; but a part at least of the notches should have projections so that if the pawl should be clogged with dirt or otherwise, and the end D should not drop, the tail end E would strike a projection, G, be thrown up, and bring the end D down. Again, D might accidentally drop into a notch at a high speed and risk the breakage of the fixture. The tail end E prevents



this by bringing D down always between two notches so that it cannot fall into a notch unless purposely allowed to do so. The end E has a third use, in that it somewhat retards the motion of the roller when the curtain escapes from the hand, and prevents it flying up so rapidly as to damage itself or adjacent objects. The pawl need not be of the precise shape shown in Fig. 1, but may be of any other equivalent form which secures the end in view—viz., that the lip D shall naturally fall into the notches of the ratchet, or when thrown up the end E shall bring it back to its place at the proper time. The forms and attachments of the spindle A B and the spring S may also vary, provided they secure the proper performance of their respective offices as herein described.

What I claim as new, and desire to secure by Letters Patent, is—

1. An improved curtain - fixture, consisting of a double pawl D E, interior ratchet and end plates F, spindle A B, bracket R, spring

S, and washer W, in combination with a roller P and spiral spring X, constructed and operating substantially as herein set forth and described.

2. An improved stop - work for curtain - fixtures, consisting of a double pawl D E and combined end plate and ratchet F, constructed and operating substantially as and for the purposes described.

3. In curtain - fixtures, attaching a pawl to the spindle, substantially as and for the purposes herein set forth and described.

4. A slotted spindle, A B, combined with a spring, S, substantially as set forth.

5. The combination, with the pawl D E, ratchet F, and spindle A B, of a spring S, substantially as and for the purposes herein set forth and described.

CHARLES E. FRITTS.

Witnesses:

J. S. FRITTS,  
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