No Model.)

W. B. NOYES.

CURTAIN ROLLER.

No. 278,037. Patented May 22, 1883.

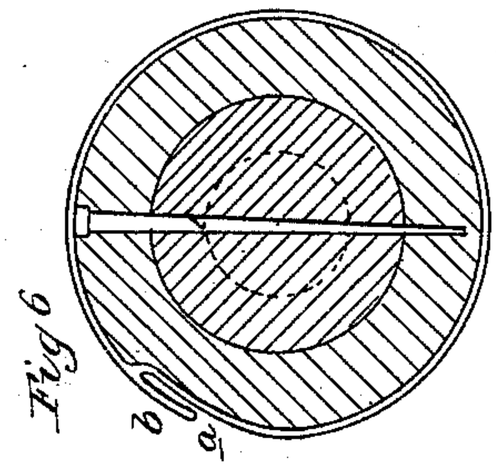

Fig 6

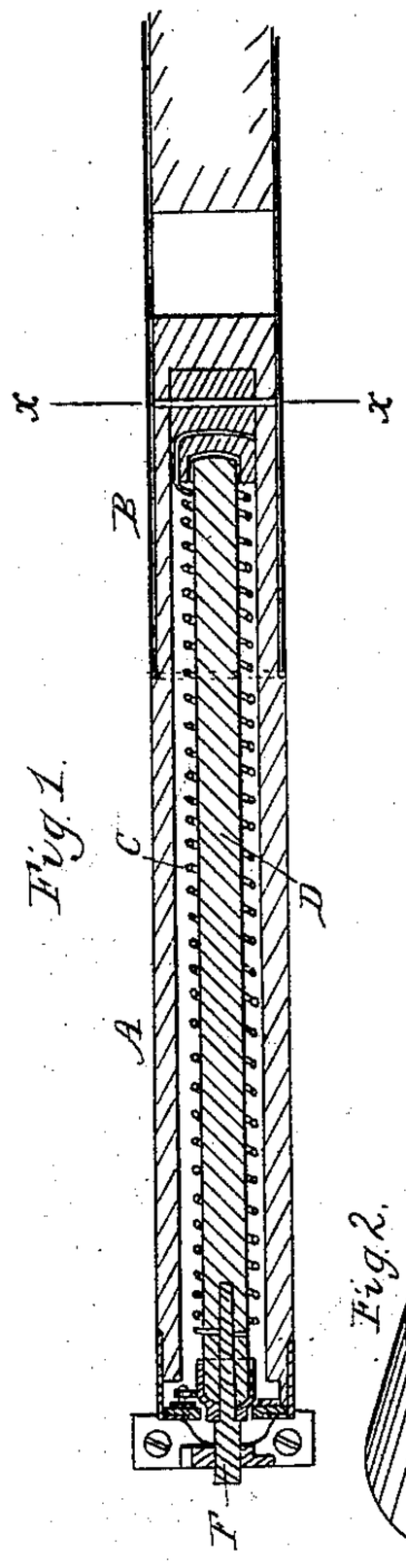

Fig 1.

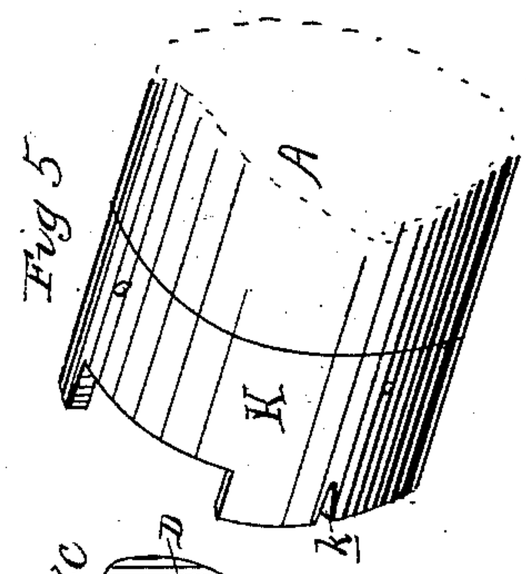

Fig 5

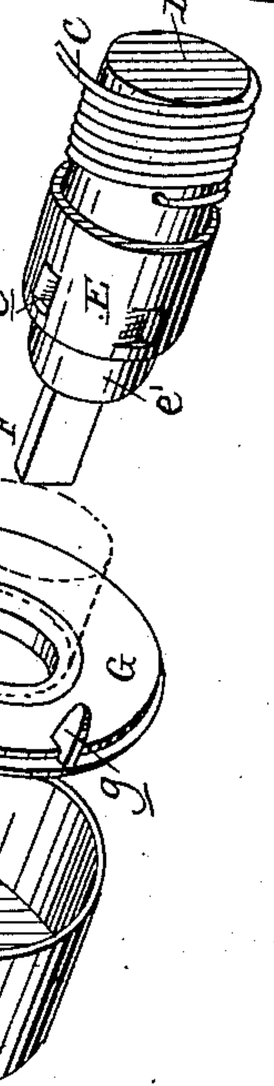

Fig 4.

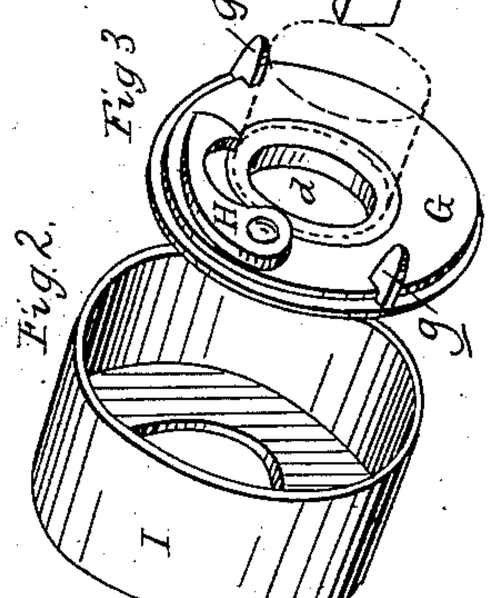

Fig 3

Fig 2.

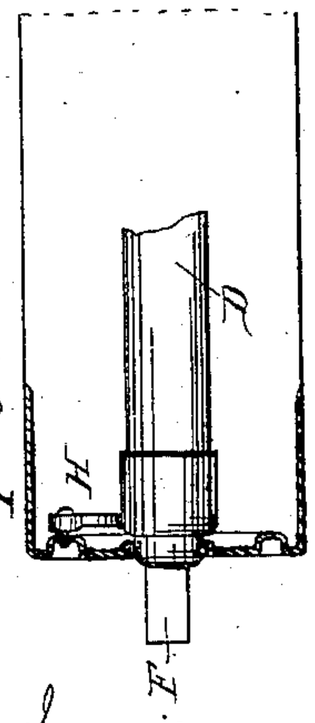

Fig 7.

Attest:
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Thos. A. Sprague
Atty.

By

UNITED STATES PATENT OFFICE.

WALTER B. NOYES, OF SAGINAW, MICHIGAN, ASSIGNOR TO LIZZIE B. NOYES, OF SAME PLACE.

CURTAIN-ROLLER.

SPECIFICATION forming part of Letters Patent No. 278,037, dated May 22, 1883.

Application filed May 10, 1882. Renewed April 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, WALTER B. NOYES, of Saginaw, in the county of Saginaw and State of Michigan, have invented new and useful Improvements in Curtain-Rollers; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

The nature of this invention relates to certain new and useful improvements in the construction of curtain-rollers, the object of the invention being to produce a spring-roller which shall be simple and cheap in point of construction, and in which the necessity of locking the spring-spindle before removing the roller from its bearings is entirely avoided; and the invention consists in the peculiar construction, arrangement, and various combinations of the parts, all as more fully hereinafter set forth.

Figure 1 is a longitudinal section through one end of my improved roller. Figs. 2, 3, 4, and 5 are enlarged perspectives in detail, showing the construction and arrangement of the lock in one end of the curtain-roller, and which controls the action of the spring. Fig. 6 is a cross-section on line *x x* in Fig. 1, and Fig. 7 is a modification of my invention.

In the accompanying drawings, A represents a hollow roller designed to support and carry the curtain. In this invention, which I design to construct in sections, each of such sections carrying a spring and lock, and both being of the same construction, it will be necessary for me to explain but one of such sections. The two meeting or adjacent ends of the sections I design to insert in a ferrule, B, longitudinally upon the outer face of which I form the channel *a* and the lip *b*. The inner ends of the roller-sections are cut away, so that when they are inserted into the ferrule or sleeve B the periphery of the roller so formed will be straight and upon the same level from end to end, the channel *a* in the sleeve being designed to receive the edge of the curtain, while outside of that sleeve the curtain is tacked to the roller, as in the ordinary manner, thus admitting of its being rolled upon the roller evenly. This sleeve is designed to be used in what I may call the "extra length" of curtain-rollers, wherein it is difficult to obtain a roller entirely of wood of the proper length that will not bend under the weight of the curtain unless it be made necessarily large. Again, this enables me to use shorter sticks in the construction of rollers and to employ a spring upon each end of the roller if I desire. Hence my springs can all be of a uniform size and strength, not rendering it necessary for me to make extra springs to support heavy curtains. These rollers A are hollow the greater portion of their length, and within this recess so formed is placed the coil-spring C, which encircles the spindle D. The inner end of the spring C is rigidly secured in any convenient manner to the roller A, while the outer end of such spring is secured to the spindle D. Upon the outer end of the spindle is secured a ferrule, E, in the periphery of which is formed a series of recesses, *c*, formed by punching inwardly a portion of the body of such ferrule. Such portion being driven into the wooden spindle D secures the same in place, and into the end of this spindle D, through a proper opening in the end of the ferrule, is driven a flattened pivot, F. A disk, G, having a central orifice, *d*, is slipped over the pivot F and upon the ferrule E. Upon the inner face of this disk G is loosely pivoted the pawl H, which, in the rotation of the curtain-roller, engages with one of the series of recesses *c* in the ferrule E, the parts being secured and held in place, as described, by means of the end ferrule, I, secured upon the end of the roller A, the end of the pivot F projecting somewhat beyond the face of this last-named ferrule. This pivot F is designed to engage with a proper bracket secured to the window-frame in the usual manner, where a roller is employed with the spring only at one end thereof. The disk G rotates upon a shoulder, *e'*, formed on the ferrule E, and is provided with lugs *g* to fit into recesses *k* in a sleeve, K, secured to the roller A, so as to keep it from turning independently of the roller.

As in the ordinary manner of hanging fixtures of this class, a suitable pivot-point is se-

cured upon the opposite end of the roller, to engage and rest within a suitable bracket upon the opposite side from that which supports the pivot F.

In Fig. 7 I show a modification of the invention above described, wherein the pawl H is pivotally secured directly to the inner face of the ferrule I, in this construction entirely doing away with the disk G above described, the operation of the parts, however, being precisely the same.

It will readily be seen that in this construction the roller can at any time be removed from its brackets without the necessity of first locking the spring-spindle or its pivot by a supplementary locking device, as in some constructions already patented, or for the employment of any supplemental lock for this purpose, whether it is automatical in its operation or otherwise, as the engagement of the pawl H with the recess *c* compels the spring-spindle to remain in its locked position until it is relieved therefrom by operating the curtain, and also that it is ready for use the moment it is inserted in its brackets, and is not dependent upon the operation of some supplementary attachment for releasing said spindle from a locked position, and hence all danger of the spring unwinding is avoided at the times that the roller is removed from its brackets.

It will also be seen that by the employment of sections of rollers, their inner ends being retained and embraced within a ferrule, as described, the same roller may be adjusted to fit a wider or narrower window-frame, and that where a stiff spring action is required—as, for instance, in very wide and heavy curtains—the solid section of roller may be supplemented with a section containing a spring, as described, which gives me a roller then with a spring at each end.

I am aware of the patent of S. Hartshorn, No. 68,502, and do not claim any construction therein shown.

What I claim as my invention is—

1. A spring-roller made in two wooden sections, each adapted to receive separate springs, in combination with the ferrule B, for joining the inner ends of the sections, said ferrule having a recess, *a*, for receiving the center of a curtain which is intended to be secured to the roller-sections by tacks on both sides of the ferrule, substantially as described.

2. In a spring-roller, the combination, with the roller A, the spindle D, and a spring and a locking-pawl, of the ferrule E, having portions forced into the spindle to secure it thereon and to form recesses to receive the locking-pawl, substantially as described.

3. In a spring-roller, the combination, with the roller A, the spindle D, the spring C, the ferrule E, having recesses *c*, and the ferrule I, of the disk G, carrying the pawl H, and provided with lugs *g*, adapted to enter recesses *k* in a sleeve, K, secured to the roller, substantially as described.

WALTER B. NOYES.

Witnesses:
P. F. DEVEAUX,
W. T. OTIS.