A. FONTAYNE.

CURTAIN-FIXTURES.

No. 193,239. Patented July 17, 1877.

Fig. 1.

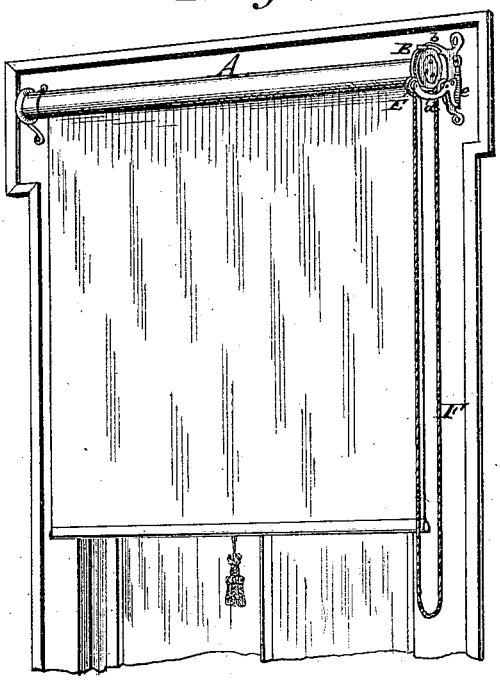


Fig. 2.

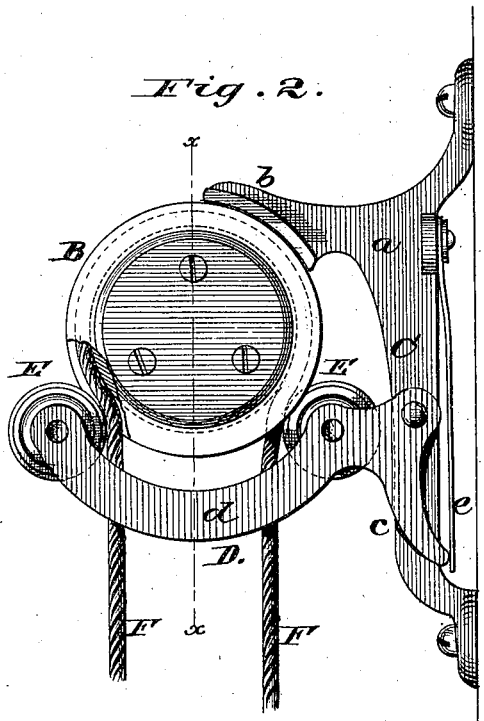


Fig. 3.

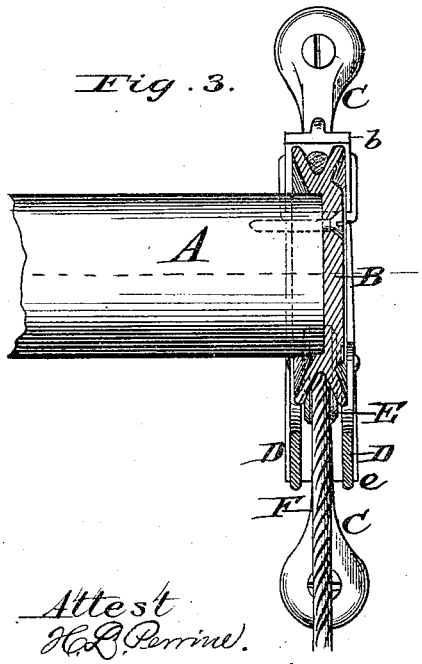


Fig. 4.

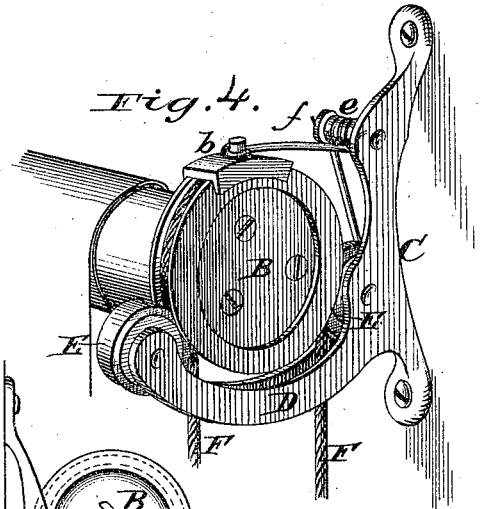
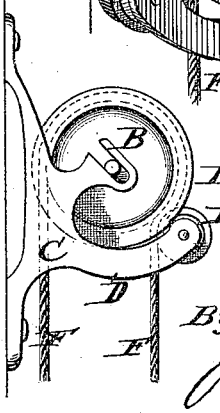


Fig. 5.



Attest

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UNITED STATES PATENT OFFICE.

ALBERT FONTAYNE, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF HIS RIGHT TO HARVEY E. RANDELL, OF SAME PLACE.

IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. **193,239**, dated July 17, 1877; application filed January 9, 1877.

To all whom it may concern:

Be it known that I, ALBERT FONTAYNE, 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 certain improvements in curtain-fixtures, and has for its object to dispense with the tension or stretching device for the curtain-cord; and my invention consists in combining, with the bracket of a curtain-fixture, two arms pivoted to said bracket in such a manner as to vibrate, said arms serving as a support for a roller or rollers, which bears against the pulley on the curtain-roller and retains the cord in place, while at the same time the two aforesaid vibrating arms serve as guides for the cord.

The invention further consists in the combination, with the grooved pulley on the end of the curtain-roller, of two rollers upon which the grooved pulley revolves, and the curtain-cord passing around the grooved pulley and between the same and the two rollers, the said parts being brought into frictional contact by means of a spring and a brake.

The invention further consists in combining, with the two parallel arms which are pivoted to the bracket and serve as a guide for the curtain-cord and a support for rollers upon which grooved pulley revolves, of a spring for acting on the pivoted arms and bring the rollers into frictional contact with the cord which passes around the grooved pulley.

In the accompanying drawing, Figure 1 represents a perspective view of my invention applied to a curtain-fixture; Fig. 2, an end elevation of the same; Fig. 3, a vertical longitudinal section on the line *x x* of Fig. 2; Fig. 4, a perspective view of a modification of my invention; and Fig. 5, an end view of another modification.

Referring to the drawing, A represents a curtain-roller; B, the grooved pulley attached to the end of the same; C, a bracket for attachment to the window-frame, as usual, and which bracket is provided with a projecting arm, *a*, having a brake-shoe, *b*, which fits over the grooved pulley at the upper side of the same, and prevents the cord from being accidentally displaced from the pulley.

D D represent two parallel arms pivoted to the bracket C, and having downwardly and rearwardly projecting ends *c* and a horizontally projecting part, *d*, and between which arms are journaled two friction-rollers, E E. Upon these rollers the grooved pulley B rests and revolves, being prevented from vertical displacement by the brake-shoe *b*, which is arranged at the top edge of the same. F is the curtain-cord, which passes around in the groove of the pulley B, and by the weight of the curtain and roller and the friction of the two rollers E, together with the aforesaid brake-shoe *b*, the curtain can be adjusted and held in any desired position.

When strain is applied to either end of the cord the rollers E press the latter into the groove of the pulley, and produce the necessary friction to revolve the same. A flat spring, *e*, bears at one end upon the ends *c c* of the pivoted arms D, the other end of said spring being attached to the bracket. As thus constructed the rollers E are kept in frictional contact with the grooved pulley and cord.

The two parallel arms D, it will be observed, also act and perform the function of a guide for the curtain-cord, prevent its accidental displacement from the grooved pulley, and also keep the pulley B in contact with the brake-shoe *b*. The spring must have sufficient elasticity to allow the pulley B to be released from contact with the brake-shoe when either end of the cord is pulled, and thus allow the said pulley to freely revolve on the rollers E.

In the modification of my invention, (represented in Fig. 4,) I form the parallel arms D rigid, the rollers E being journaled between them, as heretofore described, and the grooved pulley resting and revolving upon the rollers, and the flanged brake-shoe *b* is attached to one end of a spring, *e*, coiled around the stud *f* on the bracket. This spring has sufficient elasticity to permit the grooved pulley to revolve whenever either end of the cord is pulled for adjusting the curtain, but at the same time there is sufficient friction between the brake-shoe, pulley, and its supporting-

rollers as to retain the curtain in any adjusted position.

I also design to dispense with the brake-shoe altogether, and employ a single roller between the parallel arms; but in this case it is necessary to provide the grooved pulley with a journal or stud, *g*, which fits a slot in the bracket, as represented in Fig. 5.

It will be seen from the described construction of parts that the cord is operated by means of the weight and friction of parts which keep the cord within the groove of the pulley, and, further, that the parallel arms afford an efficient guide for the curtain-cord, and prevent its accidental displacement from the pulley, and permits the cord to be pulled at any angle to operate the pulley.

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

1. In a curtain-fixture, the combination of two parallel arms, D D, serving as guides for the cord, the roller or rollers E journaled between the same, a grooved pulley, B, a brake-shoe, *b*, and a spring, *e*, for keeping the rollers, pulley, and brake-shoe in frictional contact, substantially as described.

2. The combination of a bracket, C, the vibrating parallel arms D D, pivoted thereto, and having the projecting ends *c c*, a spring, *e*, bearing on said ends, rollers E E journaled between the arms D, the grooved pulley, and a brake-shoe, *b*, substantially as described.

3. The combination, with a curtain-roller, A, of the grooved pulley B, attached to the end thereof, the bracket C, and the two parallel independent arms D D, attached to, and projecting laterally from, the bracket, and rollers E, journaled between said arms, and upon which the grooved pulley B rests and revolves, substantially as described.

In testimony whereof I have hereunto set my hand this 13th day of December, 1876.

ALBERT FONTAYNE.

Witnesses:

JOHN O'GARA,

JOS. L. COOMBS.