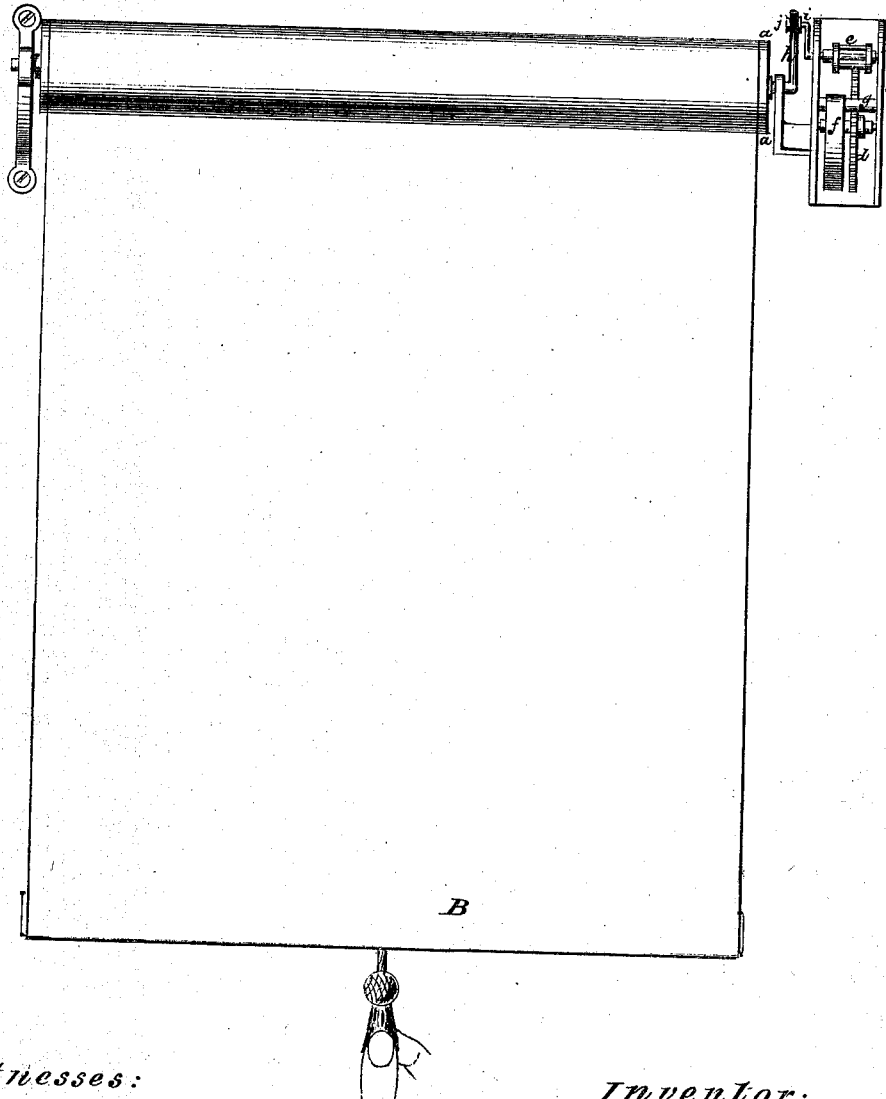


*W. F. Yates,*

*Curtain Fixture.*

*No. 107,747.*

*Patented Sept. 27. 1870.*



*Witnesses:*

*E. Wolff  
L. S. Mabee*

*Inventor:*

*W. F. Yates  
per *[Signature]*  
Attorneys.*

# United States Patent Office.

WILLIAM P. YATES, OF ELMIRA, NEW YORK.

Letters Patent No. 107,747, dated September 27, 1870.

## IMPROVEMENT IN CURTAIN-FIXTURES.

The Schedule referred to in these Letters Patent and making part of the same.

### *To all whom it may concern:*

Be it known that I, WILLIAM P. YATES, of Elmira, in the county of Chemung 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.

This invention relates to a new and useful improvement in curtain-fixtures, having particular reference to the mode of revolving the curtain-roller, and consists in so applying the power to the roller that a variable purchase is obtained, and so that, at one point in each revolution, the curtain will balance the spring, as will be hereinafter more fully described.

The accompanying drawing represents a front view of my improved curtain-fixture, showing the roller with the curtain thereon, and the mechanism by which it is revolved.

Similar letters of reference indicate corresponding parts.

*a* is the roller, which is made to revolve on pivots or bearings at its ends, by means of clock-work, *c*, attached to the window-casing.

*B* is the curtain.

This clock-work consists of a wheel, *d*, and pinion *e*, and a coil-spring, *f*.

One end of the spring is attached to the cross-bar *g*, and the other to the arbor of the wheel *d*.

The act of drawing down the curtain revolves the roller and winds up the spring, and the recoil of the spring revolves the roller in an opposite direction, and winds up the curtain.

*h* is an arm on the end of the curtain-roller pivot.

*i* is a crank on the end of the pinion-arbor.

The wrist of this crank, *j*, is always in contact with the arm, and traverses the arm nearly from end to end at every revolution.

When the wrist *j* is near the end of the arm, as seen in the drawing, it has a long purchase, and exerts its greatest force upon the roller, but when it bears upon the arm at a point near the axis or pivot, (as when its position on the arm is reversed,) it exerts but a slight force upon the roller, and the curtain will balance the spring.

It will thus be seen that, at one point in each revolution of the roller, the curtain may remain stationary. A slight pull upon the curtain when it is thus held stationary will alter the position of the wrist on the arm, giving it more lever purchase, and wind up the curtain, more or less, as may be desired. The momentum of the moving parts carries the roller past the balancing point.

To stop the curtain at the desired point, it is only necessary to draw down sufficiently hard to counteract the force of the spring.

Having thus described my invention,

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

In combination with a curtain-roller, the clock-work *c*, the arm *h*, and the crank *i*, arranged and operating substantially as and for the purposes described.

WILLIAM P. YATES.

Witnesses:

WM. H. GREGG,  
WM. L. HYLEN.