

F. C. McKay,

Curtain Fixture.

No. 102,142.

Patented Apr. 19, 1870.

Fig: 1

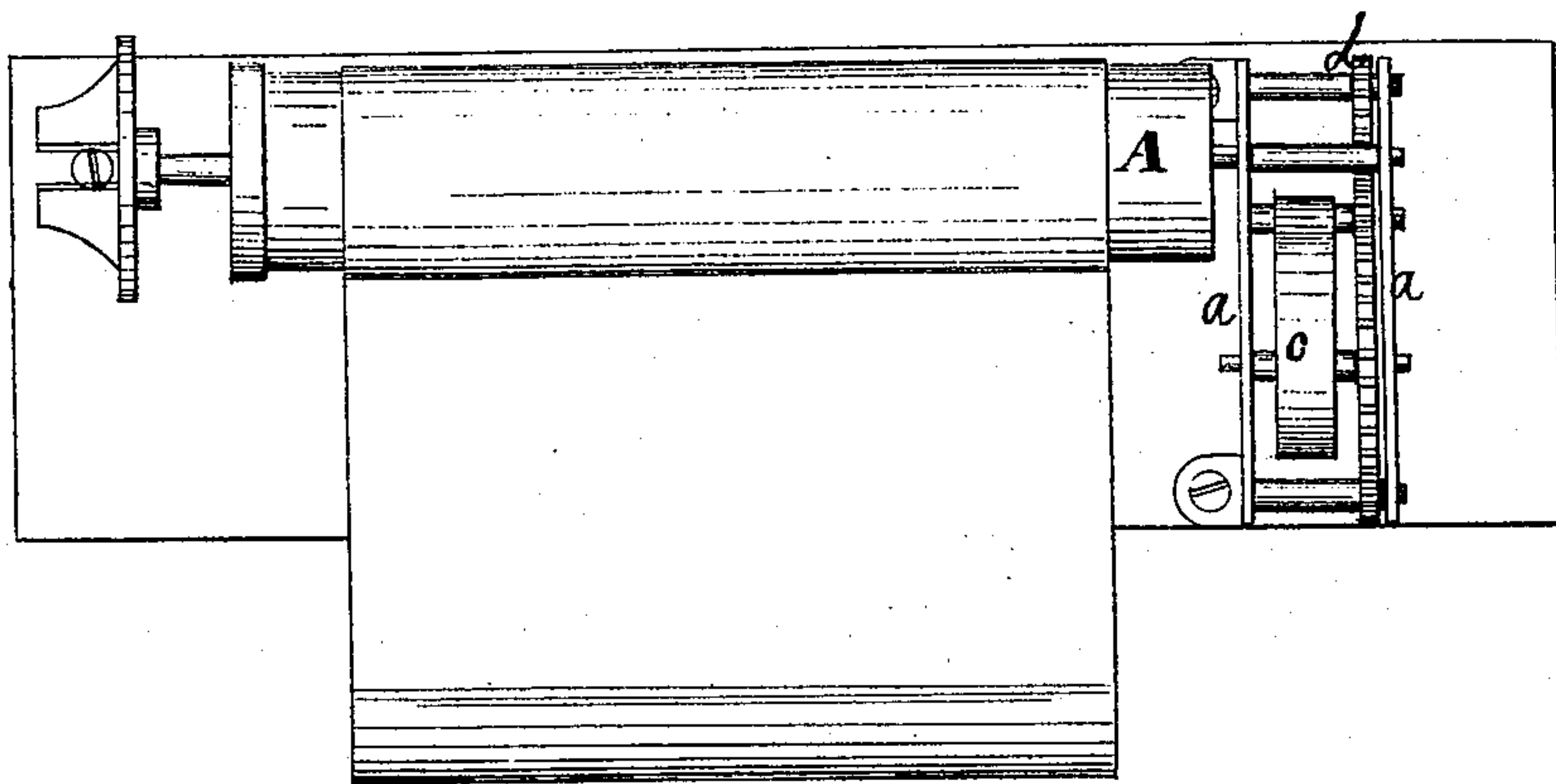
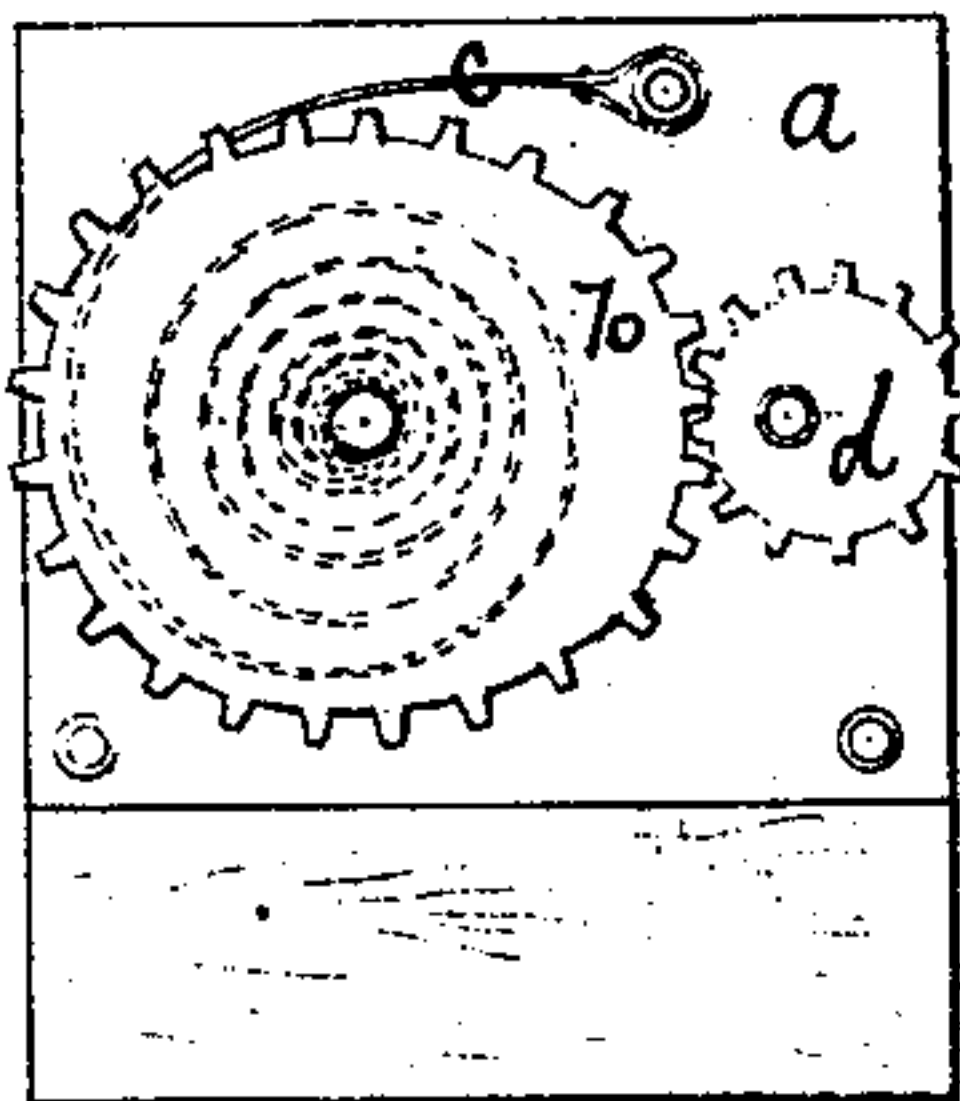


Fig: 2.



Attest
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FERDINAND C. D. McKAY, OF ELMIRA, NEW YORK.

Letters Patent No. 102,142, dated April 19, 1870.

IMPROVED SELF-WINDING AND BALANCING CURTAIN-FIXTURE.

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, FERDINAND C. D. McKAY, of Elmira, in the State of New York, have invented a new and useful Improvement in Self-Winding Self-Balancing Curtain-Fixtures; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is a side elevation.

Figure 2 an end elevation, the plate *a* being removed.

This invention consists in the combination of a wheel placed on the axis of a curtain-roller, with a driving-wheel fixed on a separate shaft, the driving-wheel being operated by a coiled spring, and both being of such shape that the driving-wheel acts differentially on the roller-wheel, or so that, in rolling up, during each rotation one or more dead points occur, at which the tension of the spring is equalized by the weight of the curtain, and the latter, consequently, hangs at rest.

To enable those skilled in the art to make and use my invention, I now proceed to describe its construction and operation.

Similar letters in the drawings refer to like parts.

A is the upper curtain-roller.

d the wheel on its axis.

b the driving-wheel.

c the coiled spring.

a *a* plates inclosing the wheels and springs.

In this instance the roller-wheel is circular, and

fixed eccentrically upon its axis, while the driving-wheel is nearly oval, the effect of which formation is that, when rolling the curtain up, the wheel *b* drives differentially, and, as often as the minor axis of the oval coincides with the right line, joining the centers of the axes of the two wheels. If the weight of the curtain be approximately adjusted to the tension of the spring, the latter is insufficient to elevate the curtain further, or, in other words, dead-points occur, and the curtain hangs at rest.

On lifting the lower part of the curtain with the hand, the weight of the curtain being thus diminished, the spring is able to carry on the elevation of the curtain until it is suffered to hang again, when another stoppage takes place at the next dead-point.

The device is applicable to awnings as well as curtains.

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

A wheel, placed on the axis of a curtain-roller, in combination with and driven by a second wheel fixed on a separate shaft, when the driving-wheel acts upon the roller-wheel differentially, or so that, in rolling a curtain up, during each rotation of the wheel one or more dead-points occur, at which the tension of the spring is equalized by the weight of the curtain, and the latter hangs at rest.

FERDINAND C. D. McKAY.

Witnesses:

GEO. E. BROWN,
C. O. BROWN.