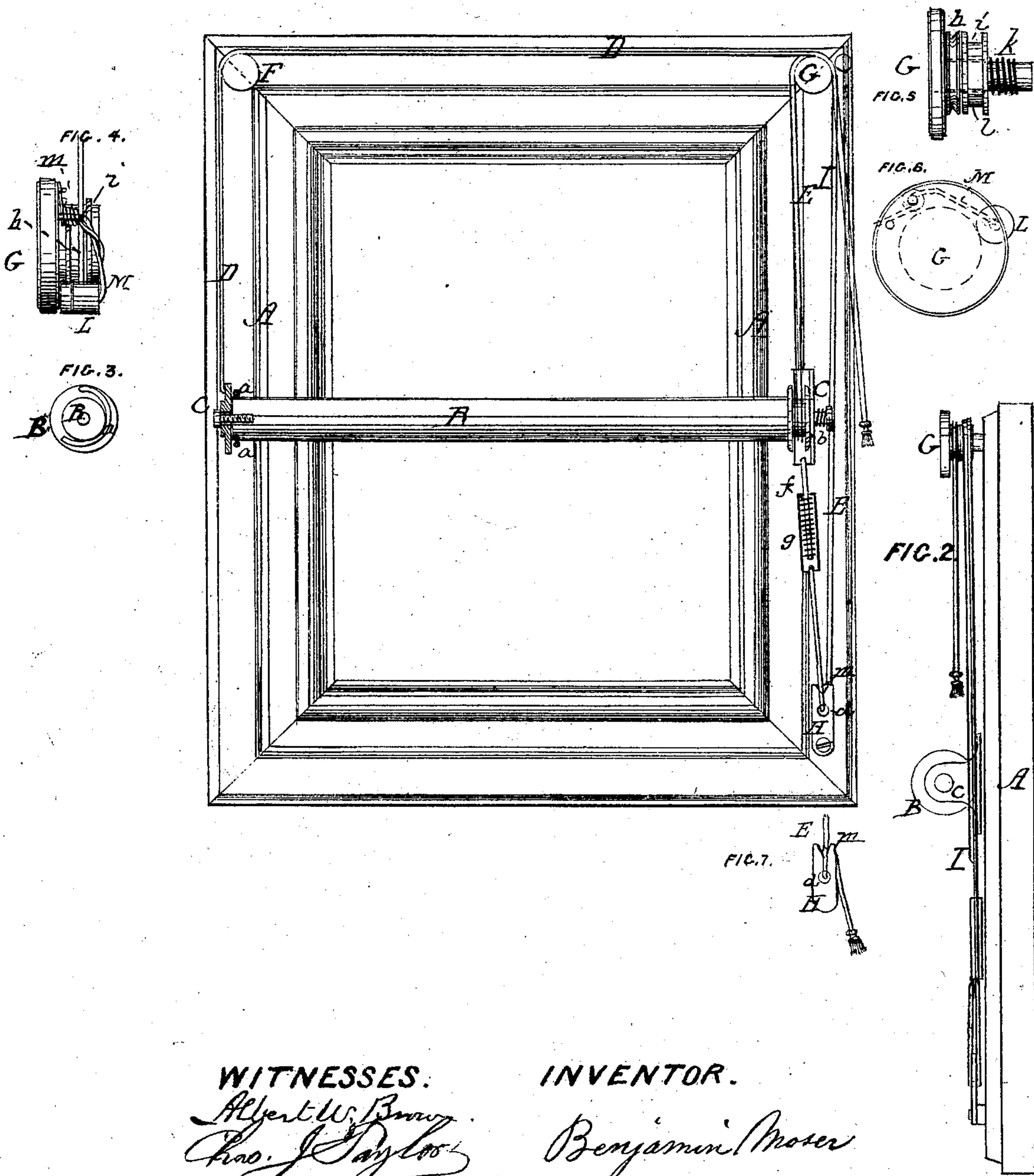


B. MOSER. CURTAIN FIXTURE.

116343

FIG. 1.

PATENTED JUN 27 1871



WITNESSES:
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IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. 116,343, dated June 27, 1871.

To all whom it may concern:

Be it known that I, BENJAMIN MOSER, of Waltham, in the county of Middlesex and State of Massachusetts, have invented new and certain Improvements in Curtain-Fixtures; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing forming part of this specification.

The present invention relates to that class of curtain-fixtures adapted for the dropping of the curtain-roller to any point desired in the height of the window-frame, and there allow the curtain to be wound or unwound; and more particularly this invention relates to the improved curtain-fixtures secured to me by Letters Patent dated January 12, 1869, and numbered 85,842. The invention consists: First, of a pulley for the curtain-cords, constructed with a loose wheel or wheels, that, by means of a spring properly applied to the pulley, can be more or less bound and held to prevent its too easy and free turning from the weight of the curtain or its roller or both. Second, in combination with the part just preceding, the use of a yielding presser-wheel adapted to bear on the curtain-cord of the said pulley, and to thereby balance or retain the shade in whatever position set. Third, of an endless cord for operating curtains when provided with a spiral spring forming a part of its continuity, for the purpose of maintaining the tension of the cord.

In the accompanying drawing my improvements in curtain-fixtures are illustrated, Figure 1 being a front elevation of a window-frame provided with a drop-fixture of the within invention; Fig. 2, a side or edge view; Figs. 3, 4, 5, 6, and 7, views in detail.

A in the drawing represents a window-frame; B, a curtain-roller having a pulley at one end, and a bracket or plate, C, at both ends; *a a*, a spring (see Fig. 3) particularly secured to one bracket, C, and partially encircling the curtain-roller to retain the roller from turning too freely; *b*, a spring at one bracket, C, this spring *b* being arranged to produce a friction of bracket on end of curtain-roller to retain the roller from turning too freely; D and E, cords secured the one to the bracket at one end and the other to the bracket at the other end of the curtain-roller, from which

they are extended, the cord D over pulleys F and G, and the cord E over pulley G and through eye *d* in plate H, fixed to window-frame. The ends D and E are joined at I. By pulling on the cord E the roller B will be raised and lowered equally at both ends. J, a cord attached to roller-pulley, and passed around pulley G for winding or unwinding the shade; *f*, a spiral spring in a case, *g*, closed at one end. To this spring *f* and case *g* (see Fig. 1) the cord E is connected, the spring and case making the continuity, and maintaining tension on the curtain-cord and securing its certain operation. The pulley G is constructed with the two loose wheels *h* and *i*, held from a too free turning when the pulley is screwed in place on the window by the spiral spring *k*. Over these loose wheels *h* and *i* the several curtain-cords D, E, and I pass, and they are all grooved, and with one shown as provided in its groove with an India-rubber or other elastic ring, *l*, to secure a greater friction on and hug of the cord passing over it. L L, wheels hung on a right-angular arm, M, fixed to the pulley G, so as to run on the curtain-cords about the wheels *h* and *i*. This arm is provided with a coil spring, *m*, in a similar manner to that described in my now pending application for improved curtain-fixture. The purpose of the arm M, with its spring *m*, is to secure a nipping or bite of the curtain-cords on the pulley-wheels *h* and *i*, preventing all possibility of slip of the cords, and securing the balancing of the shade. The cord E, in lieu of being continued and attached to the lower end of roller-bracket C, as shown in Fig. 1, may be detached and nipped about the stationary plate H, being put into the angular notch *m* of the same.

By the pressure of the spring *k* on the wheels *h i* their too free action is prevented, and they can be tightened to hold suspended any curtain or roller, and to secure a most perfect operation of the curtain. In lieu of the spring *k* a weight may be employed and arranged either directly on the cords or the arm-carrying wheels L.

The spring action on the roller end is advantageous when the winding-cord is not passed over the pulley G, but hangs loose; and the spring *f* is advantageous whether used alone or with any or more of the features contained in this invention.

Having thus described my improvements, I shall state my claims, as follows:

1. The loose wheels *h* or *i*, or both, in combination with a spring, *k*, or its equivalent, substantially as described, for the purpose set forth.

2. The presser-wheel or wheels *L*, in combination with the third clause of claims, substantially as and for the object specified.

3. The spiral spring *f*, having case *g*, in combination with curtain-cord *E* secured both to said spring and case, substantially as described, for the purpose specified.

BENJAMIN MOSER.

Witnesses:

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