(No Model.)

H. W. SIMMS.

CURTAIN FIXTURE.

No. 345,812. Patented July 20, 1886.

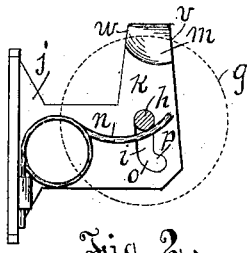


Fig. 2.

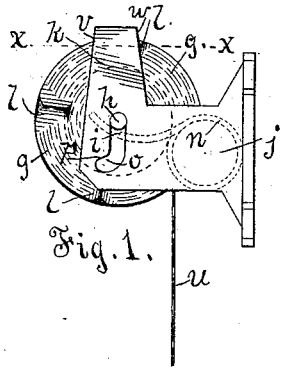


Fig. 1.

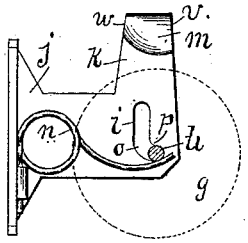


Fig. 3.

Fig. 4.

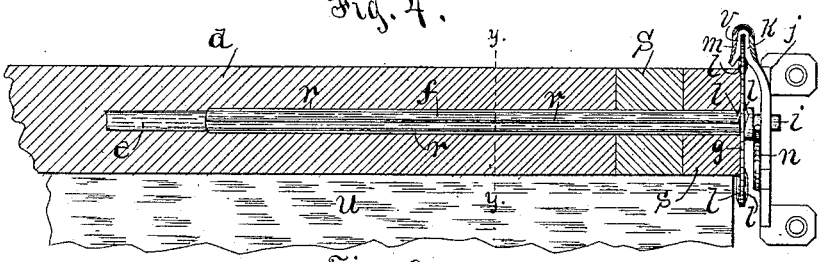
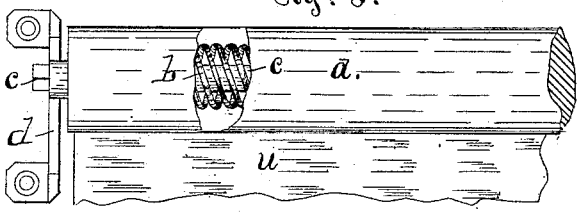


Fig. 8.



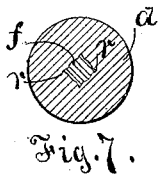


Fig. 7.

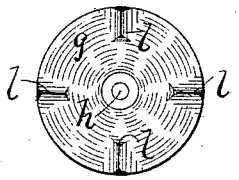


Fig. 5.

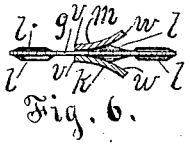


Fig. 6.

Attest.

Wm. H. Power

J. G. Fox

Inventor.

Henry W. Simms.

By James E. Thomas

Atty.

UNITED STATES PATENT OFFICE.

HENRY W. SIMMS, OF BAY CITY, MICHIGAN, ASSIGNOR OF ONE-HALF TO FERDINAND JOHNSON, OF SAME PLACE.

CURTAIN-FIXTURE.

SPECIFICATION forming part of Letters Patent No. 345,812, dated July 20, 1886.

Application filed February 24, 1886. Serial No. 192,987. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. SIMMS, a citizen of the United States, residing in Bay City, in the county of Bay and State of Michigan, have invented certain new and useful Improvements in Curtain-Fixtures, of which the following is a full description.

My invention relates to improvements in that class of curtain-fixtures in which an inclosed spring is used for actuating the roller; and it consists, chiefly, in the combination and arrangement of devices for holding the curtain in any required position, and for extending the roller to suit windows of different widths, as I hereinafter more fully describe and claim.

The objects of this invention are to provide an improved means of preventing the roller from revolving after the curtain is brought to the required position and released, so that special attention will not be needed to prevent the curtain from being raised after the desired position is reached, and to arrange the roller in such a manner that it may be easily adjusted to fit windows of different widths. I attain these objects by means of the devices illustrated in the accompanying drawings, which form a part of this specification.

In the drawings, Figure 1 represents an end view of a curtain-roller and its supporting-bracket having my improvement thereto attached. Fig. 2 is an inside view of the bracket and shows the position of the parts when the roller is at rest. Fig. 3 is a view of the same when the roller is being revolved. Fig. 4 is a front view of the bracket and a longitudinal section of the roller. Fig. 5 is a side view of the holding-wheel at the end of the roller. Fig. 6 is a section at *x x*. Fig. 7 is a section at *y y*. Fig. 8 is a portion of the roller and end bracket.

a represents a curtain-roller, and *b* is an actuating-spring inclosed within one end of the roller and properly connected to the roller and shaft *c*, which extends beyond the roller and is supported and prevented from revolving with the roller by the bracket *d*. In the opposite end of the roller is formed a longitudinal central opening, *e*, into which is passed for a considerable distance a piece, *f*, and upon the outer end of the piece *f* is arranged a flange or wheel, *g*, and extending beyond the wheel *g* is a central pivot, *h*, which rests within a slot, *i*, formed in the outward extending part of the bracket *j*. The wheel *g* is arranged to extend beyond the roller, and upon the sides of the outer portion of the wheel and opposite each other are provided the raised portions *l*, and extending upward from the bracket *j*, above the slot *i*, is the portion *k*, which also reaches over the outer rim of the wheel *g*, and has a portion, *m*, extending downward to some distance upon the opposite side of the wheel. When the central pivot, *h*, is resting within the upper portion of the slot *i*, the distance between the parts *k* and *m* is such as to allow the thinner portions of the wheel to pass between the parts upon their front edges, *v*; but the distance between their rear edges, *w*, is considerably greater, to allow the raised parts *l* to pass between the parts *k* and *m* and to be there retained. A spring, *n*, is secured to the bracket *j*, and passing beneath the pivot *h* operates to lift and hold the pivot within the upper portion of the slot *i*, and has a suitable tension or lifting power, so that when the curtain is drawn downward the spring *n* will allow the pivot *h* to pass to the lower portion of the slot *i*, and thus release the wheel from between the parts *k* and *m* and allow the roller to revolve. The curtain may then be drawn down to the desired position, and on being released the spring *n* lifts the pivot to the upper portion of the slot *i*, and the wheel *g* again passes between the parts *k* and *m*, and the raised parts *l* coming in contact with the pieces *k* and *m* at once stop the revolutions of the roller. The curtain is raised by drawing downward upon the curtain until the pivot *h* rests in the lower part of the slot, and the curtain is allowed to rise while sufficient power is yet applied by the hand to overcome the resistance or lifting power of the spring *n* and retain the pivot within the lower portion of the slot, which allows the roller to revolve and wind up the curtain until the desired point is reached. Then the curtain is released, and the wheel again engages with the parts *k* and *m*. The slot *i* may be formed straight or with a curve, *o*, near its lower portion, which assists the operator to overcome the resistance of the spring *n* while the pivot is resting in the lower portion of the

slot, as the spring acts to bear the pivot against the portion *p* until the curtain is released.

The extension-piece *f* is provided with the raised portions *r*, which, when the piece is passed into the openings *e*, press into the side of the opening and prevent the piece *f* from turning within the same.

The roller *a* is constructed of a suitable length to be adapted to windows of a narrow width, and *s* are pieces of a diameter corresponding to the diameter of the roller, and having a central opening, so that when a longer roller is required the piece *f* is withdrawn from the opening *e*, and one or more of the pieces *s* are placed upon the piece *f*, which is then again passed into the opening *e*.

The curtain *u* may be nailed or otherwise secured to the roller *a* and supplementary pieces *s* in such a manner that the curtain will hang from the inner side of the roller, the spring *b* and holding devices being arranged to operate the curtain from that side.

I am aware that a ratchet and pawl for retaining the roller in any position, and a spring sustaining the roller-journal in a slotted supporting-bracket is not new, and I do not claim the same; but, by arranging the parts *k* and *m* in the manner shown, so that the wheel passing between the parts is caught and locked, the cost of the device is greatly reduced, and the operation of locking the roller is more easily performed and with greater certainty and less noise, as with an ordinary ratchet the pawl is liable to slip over several notches and produce a disagreeable rattling, as well as an uncertainty of retaining the curtain in the position desired.

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

1. The combination, in a curtain-fixture, with the roller *a*, provided with a pivot, *h*, the bracket *j*, provided with a slot, *i*, carrying the pivot *h*, and having an upward extending portion, *k*, and a lifting-spring, *n*, beneath the pivot, of a wheel, *g*, secured to the end of the roller and provided with the raised portions *l* upon its side faces, and the portion *m* extending downward from the upper end of the part *k* and forming a space between the parts *k* and *m*, wherein the thinner portions of the wheel may pass and the raised portions *l* be retained, substantially as herein set forth.

2. In a curtain-fixture, the combination, with the roller having a longitudinal central opening in one end for a portion of its length, of an extension-piece passed into the said opening and provided with one or more longitudinal ribs projecting from its sides, and supplemental pieces of the roller having a central opening and passed upon the said extension-piece and against the outer end of the principal roller, substantially as and for the purpose set forth.

3. In a curtain-fixture, the combination, with a curtain-roller, *a*, having a longitudinal central opening, *e*, of an extension-piece, *f*, passed into the said opening, and provided with the ribs *r*, and the supplemental roller-sections *s*, provided with a central opening, *t*, and placed upon the piece *f*, substantially as and for the purpose set forth.

In witness whereof I hereunto affix my signature.

HENRY W. SIMMS.

Witnesses:
J. E. THOMAS,
W. H. POWER.