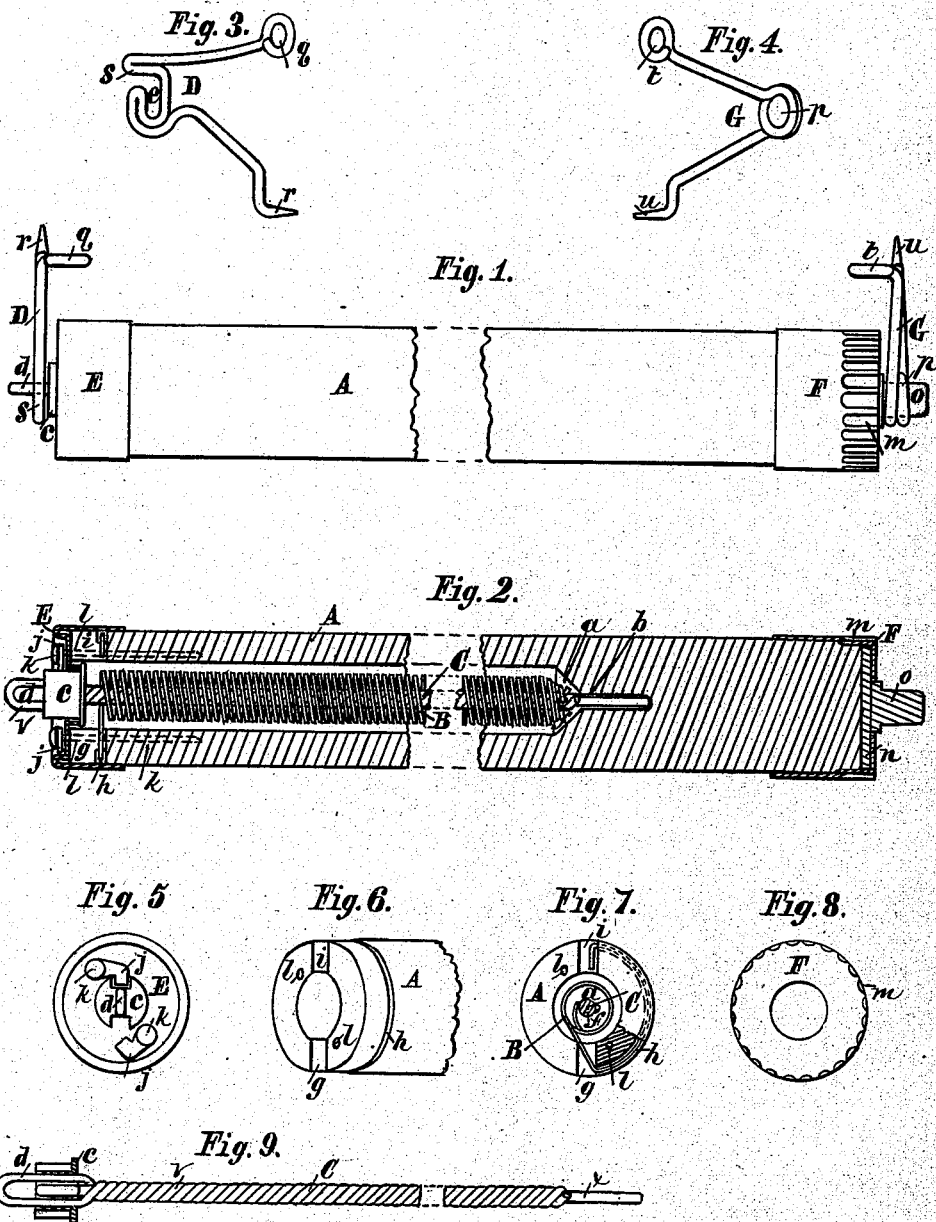


(No. Model.)

Z. F. BRYANT.
CURTAIN FIXTURE.

No. 382,797.

Patented May 15, 1888.



Attest;

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UNITED STATES PATENT OFFICE.

ZENAS F. BRYANT, OF MALDEN, ASSIGNOR OF ONE-HALF TO WILLIAM H. PARK, OF BOSTON, MASSACHUSETTS.

CURTAIN-FIXTURE.

SPECIFICATION forming part of Letters Patent No. 382,797, dated May 15, 1888.

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To all whom it may concern:

Be it known that I, ZENAS F. BRYANT, a citizen of the United States, residing at Malden, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Curtain-Fixtures, of which the following is a specification.

My invention relates to improvements in curtain-fixtures provided with a spiral spring for rolling up the curtain, and a pawl and ratchet or notched hub for checking the rotation of the roller; and it consists in the improved devices and combinations hereinafter set forth, and specifically pointed out in the claims.

In the drawings, Figure 1 is a plan view of the exterior of so much of a curtain-fixture as is necessary to illustrate my invention. Fig. 2 is a longitudinal section of the roller, showing the parts therein. Figs. 3 and 4 are perspective views of the two brackets. Fig. 5 shows the end of the cap and spindle having the pawls thereat. Fig. 6 shows a portion of the roller at the end, the cap being removed. Fig. 7 is an end view of the roller, the cap being removed, and also shows the spring and section of the spindle. Fig. 8 shows an end of the fluted cap. Fig. 9 shows the spindle.

The wooden roller A has a central hole extending therein from one end of the roller a sufficient distance for the required spring B. This hole may be of much smaller diameter than ordinarily required, on account of the small diameter of the spindle C and of the spiral spring B. The inner end of this hole tapers at *a* toward the axis of the roller, and has a smaller portion at *b*. This part *b*, of smaller diameter, receives the end of the spindle C, which bears therein. The tapering part *a* guides the end of the spindle into its bearing *b* when thrust endwise into the hole in the roller. The spindle C has fastened thereon a ratchet or notched hub, *c*, in which the notches upon opposite sides of the hub are formed by grooving the end of the hub diametrically before it is placed on the spindle. The outer end, *d*, of the spindle is formed rectangular, to be held in the socket *e* of the bracket D, so that the spindle is prevented from revolving. One end of the spiral spring B is fastened to the spindle, near its inner end, at *f*. The other end of the spring-wire is fastened to the roller

by being bent of suitable shape to extend through a slot, *g*, a peripheral groove, *h*, and a slot, *i*, as shown.

The cap E covers an end of the roller A and extends a distance over its periphery, so as to cover the groove *h* and the spring-wire therein. This cap, which may be struck up out of sheet metal, is of double thickness at its outer end—that is, the thin metal is turned back upon itself, so that the cap is recessed or countersunk at its end to form a chamber for the pawls *j*. Each of these pawls is pivoted by means of a pin, *k*, (which may be a simple round nail or a screw,) which extends through the end of the cap and into the wooden roller at *l*. These pins will keep the cap in place on the roller, as well as serve as pivots for the pawls. Owing to the small diameter of the spindle and spring, and hence of the hole in the roller, the shell of the roller is quite thick, so as to receive the pins *k*, as shown. The cap F at the other end of the roller also covers a large part of the end of the roller and extends over a portion of its periphery. It is longitudinally fluted at *m* throughout a portion of its periphery extending to its outer end. At the end of the roller within the cap F is a disk or plate, *n*, having joined thereto a central pin or stud, *o*, which enters the hole or bearing *p* in the bracket G and forms a pivot for the rotation of the roller. The cap F, being struck up out of sheet metal, has, on account of its fluting, interior projections, by which it may be held in place on the roller when driven thereon, and by which the distance of the end portion thereof from the end of the roller may be gaged, and also by which the disk or plate *n* may be held firmly. The fluting also gives stiffness to the outer edge of the cap, so that it may not be easily bent or jammed.

In order to provide a small spindle and one having the desired strength and stiffness, I prefer to construct the same by winding a wire, *v*, around a central core, *x*. The wire *v* is bent to form the rectangular end *d*. The central wire or core, *x*, may be doubled or enlarged within the ratchet or notched hub *c*, and extends beyond the wire *v* to form the inner end of the spindle in the bearing *b*.

I claim as my invention—

1. In combination with a curtain-roller, A, having slots *g* and *i* and peripheral groove *h*, and a spindle, C, a spiral spring, B, fastened at its inner end to the spindle and fastened at its outer end to the roller A by extending through said slots and groove, substantially as set forth.
2. In combination with a curtain-roller, A, provided with slots *g* and *i* and groove *h*, to receive the end of the spring-wire, a cap, E, extending over the periphery of said roller, so as to cover said groove and spring-wire therein, substantially as specified.
3. In combination with a curtain-roller, A, a cap, E, of one piece of metal, extending over a portion of the periphery of said roller and turned back upon itself at its outer end, whereby the cap may be struck up out of sheet metal and be recessed or countersunk at its end to form a chamber for the pawls *j*, substantially as specified.
4. In combination with a curtain-roller, A, cap E, and pawls *j*, pins *k*, which extend through the end of said cap and into the roller and form pivots for the pawls, substantially as set forth.
5. In a curtain-roller, in combination with a ratchet or notched hub, a spindle formed of a central wire or core doubled or enlarged within the ratchet or notched hub, and a wire wound around the central wire or core and bent to form the rectangular end, substantially as specified.
6. In combination with a curtain-roller, a spindle therein formed of a central core having a wire wound thereon, substantially as described, and for the purposes set forth.

ZENAS F. BRYANT.

Witnesses:

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W. H. PARK.