H. C. STEINHOFF.

Curtain Rollers and Brackets.

No. 195,962. Patented Oct. 9, 1877.

Fig: 1.

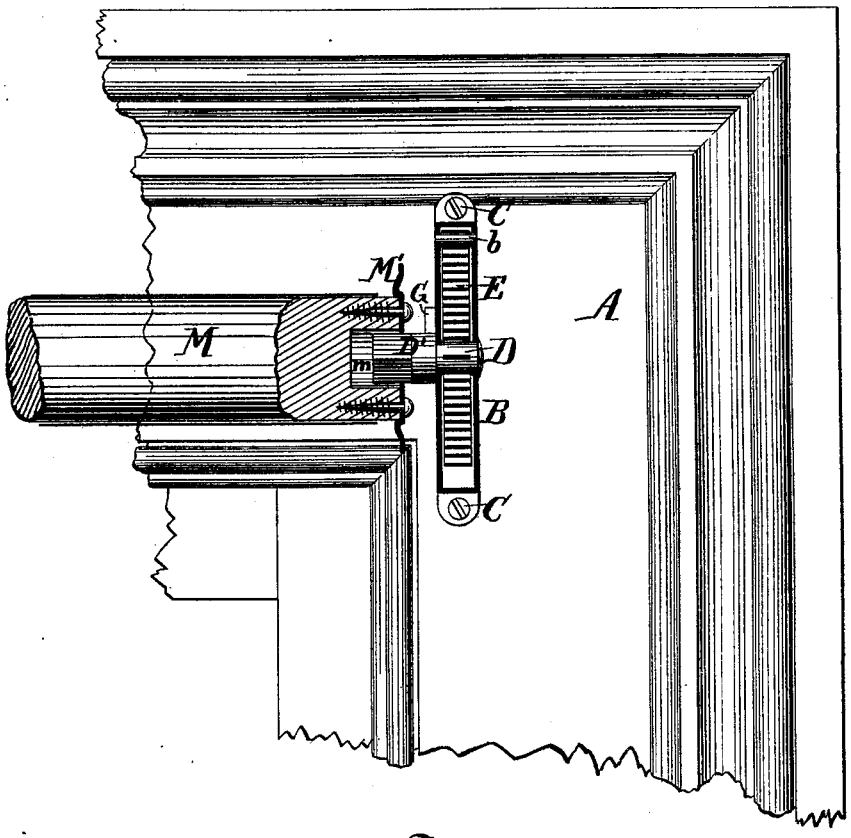
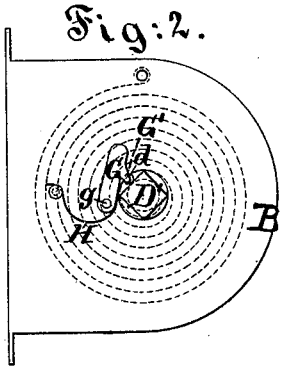


Fig: 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

HERMAN C. STEINHOFF, OF NEW YORK, N. Y.

IMPROVEMENT IN CURTAIN-ROLLERS AND BRACKETS.

Specification forming part of Letters Patent No. **195,962,** dated October 9, 1877; application filed June 27, 1877.

To all whom it may concern:

Be it known that I, HERMAN C. STEINHOFF, of New York city, in the State of New York, have invented certain new and useful Improvements relating to Curtain-Rollers and Brackets, of which the following is a specification:

I employ a short shaft mounted in a case carried on one of the brackets, and the projecting end of which short shaft engages with and supports the curtain-roller, and imparts thereto the effect of the spring, and in combination therewith I employ a pawl mounted on the fixed part engaging with a notch in the short shaft.

The following is a description of what I consider the best means of carrying out the invention.

The accompanying drawings form a part of this specification.

Figure 1 is a front view, partly in section, representing the curtain-roller mounted in position for use. Fig. 2 is a side view of the casing with its short shaft and pawl, the curtain-roller proper being detached.

The figures represent the novel parts with so much of the ordinary parts as will serve to indicate their relation thereto.

Similar letters of reference indicate like parts in both the figures.

A is a portion of the window-frame, or of the fixed work adjacent thereto. B is a hollow case, standing in lieu of one of the brackets, and secured to A by screws C C. It carries a short shaft, D, which finds its bearings in or near the flat faces of the case B, extending outward toward the curtain a little distance, as indicated by D′. The end D′ is square for a little distance. To the short shaft D is fixed the inner end of a long helical spring, E, the outer end of which is fastened to a rivet, *b*, on the interior of the casing B.

M is a solid roller, of wood, having a metal end plate, M′, secured by screws, as represented. There is no projecting bearing at this end of the roller. In lieu thereof a hole, *m*, is bored a little way into the end of the roller. The corresponding hole in the end piece M′ is square, and adapted to engage tightly with the square end D′ of the short shaft D. The main body of the roller M may be of the ordinary character. The other end (not shown) may be equipped, in the ordinary manner, with a projecting bearing, supported in an ordinary bracket by means of the ordinary open-topped notch, or otherwise, to provide for removal and replacing when necessary.

In removing the roller, by lifting the other end (not shown) there is room for sufficient working of the square end D′ of the short shaft D in the square socket in the plate M′ to allow the other end of the roller to be deflected to disengage it from its bracket.

It will be understood that when the other end is disengaged from its bracket the roller may be moved endwise and freed from the square end D′ of the short shaft D, when it will be completely disengaged, leaving the short shaft and its spring E in the casing B, ready to again serve when the roller is returned by the reverse of this operation.

I provide a notch or longitudinal groove, *d*, (see Fig. 2,) in the extended end D′ of the short shaft, and also a hook-pawl, G, hung on a fixed center, *g*, and actuated by a spring, H. The hook G′, which engages in the notch *d*, is formed with a square shoulder on one side, and is beveled on the other, so that it allows the shaft to be turned always easily in the direction to pull down the roller, but will resist the winding up of the roller, except when it is allowed to move very quickly. In the latter case the pawl will not have time to drop into the notch *d*, and will allow the curtain to be wound up rapidly by the force of the spring.

Operation: To set the spring, seize the square projecting end D′ with a pair of pliers or analogous instrument, and turn it to a sufficient extent. The hook-pawl will hold it wound. Before engaging the roller, roll up the curtain, thrust the roller endwise upon the short shaft, and properly support the other end in its appropriate bracket. (Not represented.) The curtain is now ready for use. To lower it, pull down the curtain in the ordinary manner, holding it still a little when down to the proper extent, and the hook-pawl will engage. To liberate it, pull down the curtain a little way, and then let it up quickly. The pulling down lifts the hook G′ out of the notch *d*, and it rides on the smooth cylindrical portion of the surface of D′. On letting it go quickly the curtain acquires a sufficient velocity to run the

notch *d* successively under the hook G′ without engaging until the curtain is again stopped or moved slowly.

The fact that the center, *g*, of my pawl is a fixed center makes the effect of gravity always uniform on the pawl. My spring H should be more than sufficient to balance the gravity, so that my case B may be set on either side of the window, and, consequently, with the gravity of the pawl G always tending either to open or to close it. I prefer to so mount the pawl that it shall be practically vertical when lifted, and have so represented it. In this position gravity is of no effect, and the spring alone impels its engagement; but whatever may be the position of the casing B—as, for example, if it be in some situations screwed up under something, so that gravity impels the pawl to open or close—its effect will be always uniform. This condition is not obtained with pawls which revolve with the roller.

My device is remarkably compact, convenient, and efficient. The roller may be shipped and unshipped without disturbing any of the working parts. The capacity for applying the case B on either side of the window, and either on a vertical or under a horizontal surface, greatly increases its utility for general use.

I do not claim anything shown in the patent to J. Y. Marsh, February 26, 1861; but,

Having now fully described my improvement, I claim as my invention—

The pawl G, turning on the fixed center *g*, and actuated by the spring H, in combination with the short shaft D, suitably notched to engage with it, and with the casing B and spring E, adapted to serve relatively to each other, and to the socketed curtain-roller M, as herein specified.

In testimony whereof I have hereunto set my hand this 25th day of June, 1877, in the presence of two subscribing witnesses.

HERMAN C. STEINHOFF.

Witnesses:

F. ACKERMANN,

WILLIAM MELZER.