(No Model.)

G. W. MACKENZIE.

CURTAIN FIXTURE.

No. 507,146. Patented Oct. 24, 1893.

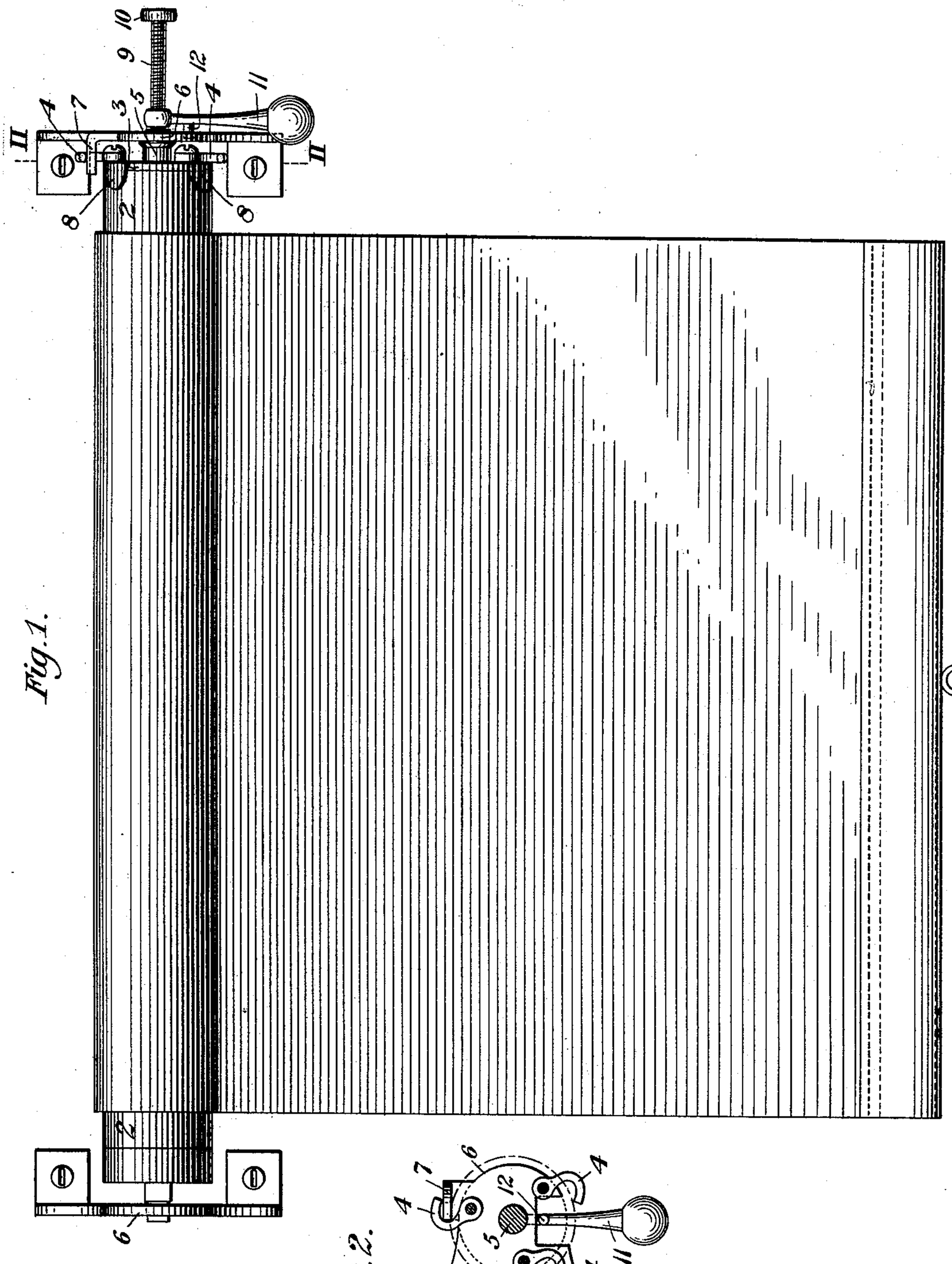

Fig. 1.

Fig. 2.

WITNESSES

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GEORGE W. MACKENZIE, OF BEAVER, PENNSYLVANIA.

CURTAIN-FIXTURE.

SPECIFICATION forming part of Letters Patent No. 507,146, dated October 24, 1893.

Application filed June 27, 1893. Serial No. 478,953. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. MACKENZIE, of Beaver, in the county of Beaver and State of Pennsylvania, have invented a new and useful Improvement in Curtain-Fixtures, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation of a curtain-roller provided with my improved fixtures; and Fig. 2 is a cross-sectional view on the line II—II of Fig. 1.

My invention relates to the operating and controlling of window curtains, and is designed to attain a device by which the curtain will be automatically rolled up as long as it is allowed to rise slowly, but will be immediately locked in place whenever it is released.

To that end it consists in a curtain-roller, having a spring, or its equivalent, arranged to exert a constant force upon the roller, tending to roll up the curtain, this roller having, at one end, a series of pivoted hooks, which are so arranged that they will fly out under the action of centrifugal force whenever the curtain is released, and become hooked about a fixed catch plate, but will be released whenever the curtain is pulled downward slightly.

It also consists in an automatic regulator arranged to stop the curtain at a fixed height, as well as in the construction and arrangement of parts as hereinafter more fully described and set forth in the claims.

In the drawings, 2 indicates the shade roller, having therein, at one end, the usual spring now employed to roll up the curtain. The other end of the roller is provided with a plate 3, having pivoted thereto three swinging hooks 4, and provided with a central shaft 5, the reduced portion of which passes through and is journaled in the bracket 6. The shoulder upon this shaft holds the plate a sufficient distance from the bracket to allow free play of the hooks in the space formed therebetween. Projecting from the bracket across this space and preferably overlapping the edge of the plate 3, is a lip or catch-plate 7, which is preferably integral with the bracket. In order to center the plate upon the end of the roller, I provide the projecting lugs 8, which take over the end of the roller and fix the position of the plate thereon. In the inner screw-threaded end of the shaft is secured the screw 9, having the suitably milled head 10, and passing through a threaded aperture in the weighted arm 11. This arm is provided with the stop 12, projecting therefrom, and adapted to engage the sides of a recess cut in the lower edge of the bracket. This regulator is not a necessary part of my device and may be unscrewed and removed if desired, as it is used only where it is desired to stop the curtain at a fixed point, and is applicable to any curtain-roller.

The operation of my invention is as follows:—When the curtain or its cord is seized and the spring is allowed to roll the same up slowly, the hooks hang downwardly under the action of gravity and remain inoperative. When, however, the curtain is released, its speed being at once accelerated, the hooks are thrown out under the action of centrifugal force, and one of them immediately engages and takes about the catch-plate, thus effectually locking the curtain in place. As soon as the curtain is drawn down slightly, the hook automatically disengages itself, and the spring may roll up the curtain as before. If it is desired to stop the curtain at a fixed point, or to set several curtains so as to stop in the same position, the swinging arm is so adjusted that it will become locked against the end of the shaft when the desired point is reached, the screw turning with the shaft. The stop then engaging the sides of the bracket-recess, will hold the roller and prevent further rotation.

The advantages of my invention will be apparent. All danger of the shade being completely rolled up when released is obviated, and all that is necessary to stop the shade in any position is to release it at that point. The swinging-arms being of hooked form, take about the catch-plate and prevent any liability of slipping off, while by the use of a series of these hooks, a close adjustment is attained, and the liability of tearing off the hooks is removed, as might occur if only one were used, as considerable momentum would be attained before the hook engaged with the plate.

Modifications in the construction and arrangement of the parts may be made within the scope of my invention, since

What I claim is—

1. The combination with a spring shade roller, of a plate at one end having a series of pivoted hooks in the space between the plate and the bracket, and a catch-plate projecting from the bracket across this space outside the hook pivots; substantially as described.

2. A curtain-roller having at one end a plate provided with centering projections taking about the roller, pivoted hooks upon said plate, and a bracket having a projecting lip arranged to be engaged by the hooks when the curtain is released; substantially as described.

3. A shade-roller, having a screw-threaded portion, an interiorly threaded arm engaging said portion, and a stop upon the arm; substantially as described.

4. A shade-roller whose shaft is provided with a detachable projecting screw, a weighted arm through a screw-threaded aperture in which the screw passes, and a stop upon the weighted arm; substantially as described.

In testimony whereof I have hereunto set my hand.

GEORGE W. MACKENZIE.

Witnesses:

ALFRED S. MOORE,

WINFIELD S. MOORE.