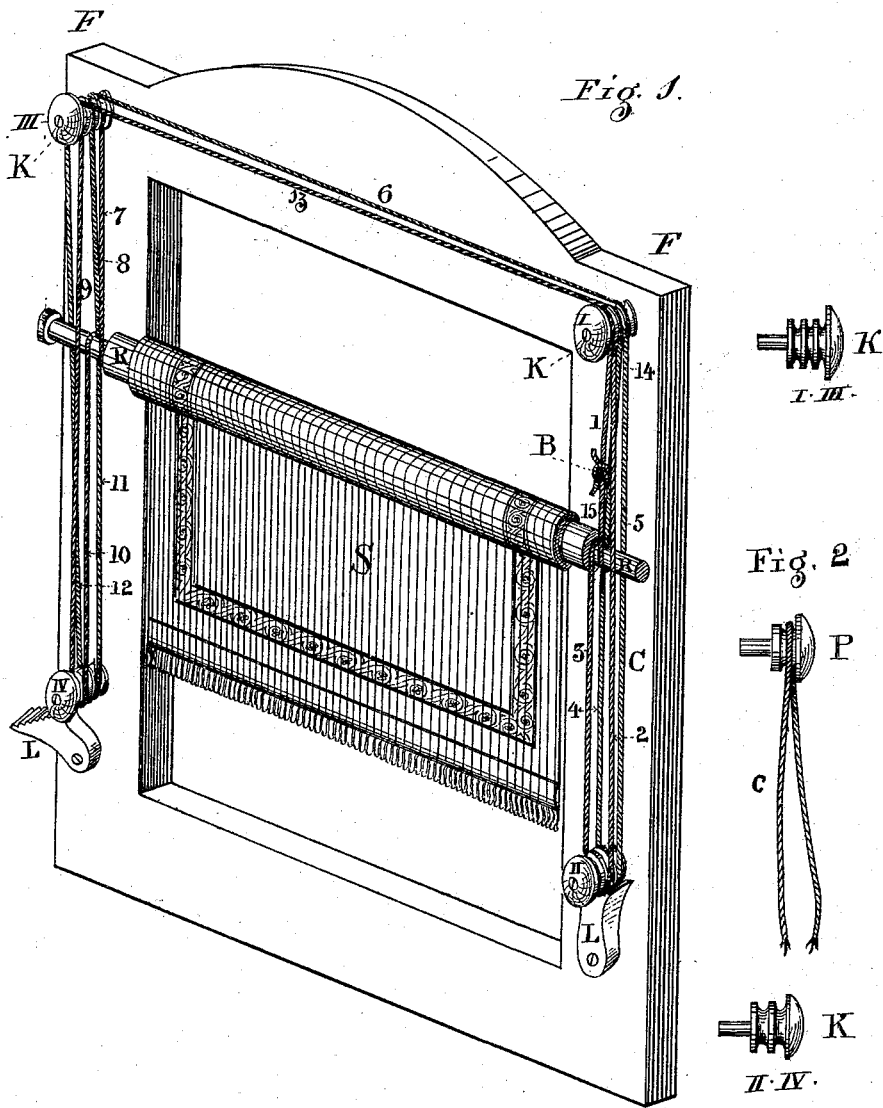


A. R. NISSLEY.
Window-Shade Fixture.

No. 219,110.

Patented Sept. 2, 1879.



WITNESSES:
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UNITED STATES PATENT OFFICE.

AMOS R. NISSLEY, OF MARIETTA, PENNSYLVANIA.

IMPROVEMENT IN WINDOW-SHADE FIXTURES.

Specification forming part of Letters Patent No. **219,110**, dated September 2, 1879; application filed June 27, 1879.

To all whom it may concern:

Be it known that I, AMOS R. NISSLEY, of Marietta, in the county of Lancaster and State of Pennsylvania, have invented certain Improvements in Manner of Rolling and Elevating Window-Shades, of which the following is a specification.

The nature of this invention consists in the manner of applying a continuous cord to the ends of a roller for a window shade or curtain by means of four fixed and grooved corner-knobs on the window-frame, for the purpose of elevating or lowering said roller, as well as to roll or unroll the shade or curtain at any desired point by manipulating the two outer strands of the cords simultaneously on each side, respectively, without any other fixtures.

The accompanying drawings, with the letters and numerals marked thereon, and a brief explanation, will enable any one of ordinary skill to make and use the same.

Figure 1 is a perspective view of the window-frame F, the four fixed knobs K, the upper, I and III, provided with three grooves, the lower, II and IV, having two grooves only; the ends of the roller R shouldered or recessed. C shows the cord in sections, numbered from 1 to 15.

Fig. 2, and the turn-clamps L in Fig. 1 represent separate devices, as hereinafter specified.

The novelty consists in the manner of running the cord so as to loop the roller end on each side from above, and also from beneath, with the respective grooved knobs below and above, for the purpose of giving to the roller and shade or curtain any desirable adjustment, accordingly as each pair of strands are pulled upon upward or downward.

In order to explain the application of the cord, we must suppose a beginning, and number the parts, as it were, in sections. Where the knot is shown at B in the drawings, we will start as the beginning of this endless cord. The portion, 1, above the knot B goes from the inside over the knob I in the outer groove, and, passing freely over the roller R, 2, from the outside under the knob II in front groove; then up, 3, looping over the boxed-out end of the roller R, and returning down, 4, and from the inner side in the second groove of knob II, and carried up behind the roller R, and free of it, 5, to the knob I; thence horizontally across

on the frame, 6, over knob III; thence down, 7, looping the end B of the roller R, and up again, 8, on the inner side, over the knob III; thence vertically and freely over the end of the roller, R, 9, to the knob IV, around this and up, 10, looping the said roller end; thence down, 11, on the inner side again, around knob IV and upward, passing freely behind the end of the roller R, 12, and carried over the knob III; thence across, 13, the top of the frame, over the knob I, and thence down, 14, from the middle groove to loop the roller R, and upward, 15, to the place of beginning at B, where the two ends of the cord are united. This knot B, as shown in the drawings, in actual use may shift its position, or may be made at any other point, to produce the same result when united into an endless cord, doubled and looped upon the roller and knobs in the order mentioned.

The mode of operating to effect the several changes by the two outer strands of the cord on each side is as follows: The strands being tight, and not held by the thumb-latch L, so that they move freely in the grooves of their respective knobs, first movement, by gripping the outer strands on each side, and drawing on them simultaneously up or down, will raise or lower the roller with the curtain; second movement, draw on the single strands 2 and 9 (the outer strands) for unrolling the curtain from toward the top, leaving the lower stationary; third movement, rolling at the top and raising and lowering the curtain at the bottom, operate the inner strands, 5 and 12, in unison; the fourth movement is to roll the curtain on or off at any desired height by clamping the strands below by the turn-holder L, and operating the loose cord C, Fig. 2, which works the outer traction-pulley, P, by tightly drawing forward and backward on the pendent continuous strands passing over the external pulley, P, on the end of the roller R. These clamps L and extra pulley P, with its independent cord, are only required for certain extra movements, and are of trifling additional cost.

This simple and cheap device is, practically, equal to those contrivances having slides, pulleys, springs, or other additional fixtures, and can be put up at a cost not exceeding ten cents for the cord and four knobs. I tried it by simply using empty spools and wood-screws, and

found it to work admirably. Of course these knobs may be made ornamental, or simply turned out of wood.

I am aware of numerous devices for operating window shades or curtains with cords and pulleys, and thereby produce various adjustments; but I am not aware that a single cord, in combination with a roller and fixed knobs, was ever known or used substantially as herein shown, specified, and claimed. Therefore,

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

The combination of a curtain-roller, R, having the ends boxed out to receive the loops of an endless cord, C, coming from grooved corner-knobs I III above, as also like loops from the knobs II IV below, said endless cord being arranged substantially as and for the purpose set forth.

A. R. NISSLEY.

Witnesses:

J. L. BRANDT,
H. R. NISSLEY.