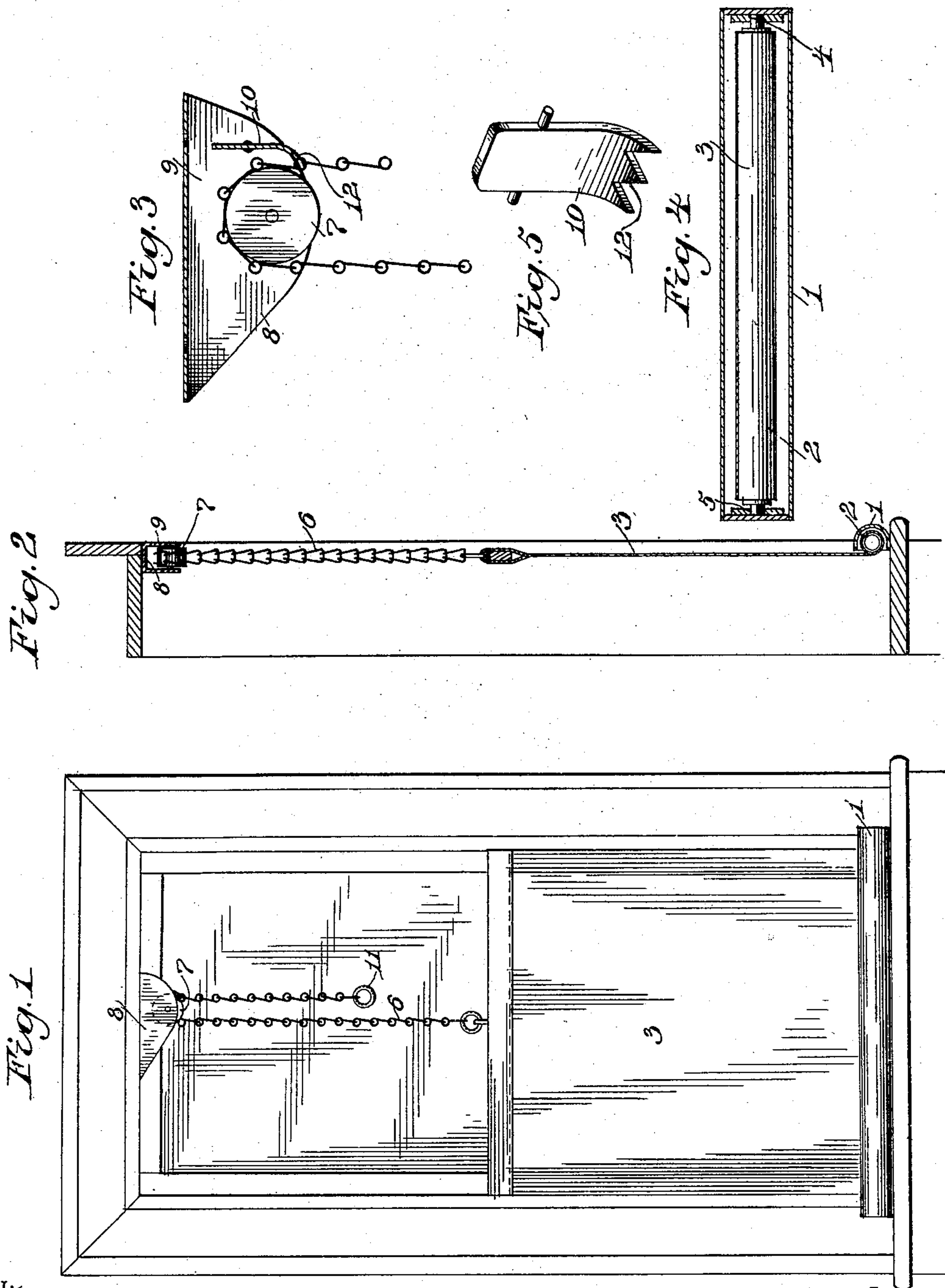


(No Model.)

M. McE. KILLINGER.  
WINDOW SHADE.

No. 482,797.

Patented Sept. 20, 1892.



Witnesses  
L. M. Gallahan  
H. P. Riley

Inventor  
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# UNITED STATES PATENT OFFICE.

MELROSS MCENTYRE KILLINGER, OF BATTLE CREEK, NEBRASKA, ASSIGNOR  
TO FANNIE A. GRINNELL, OF WYTHEVILLE, VIRGINIA.

## WINDOW-SHADE.

SPECIFICATION forming part of Letters Patent No. 482,797, dated September 20, 1892.

Application filed February 13, 1891. Serial No. 381,324. (No model.)

*To all whom it may concern:*

Be it known that I, MELROSS MCENTYRE KILLINGER, a citizen of the United States, residing at Battle Creek, in the county of Madison and State of Nebraska, have invented a new and useful Window-Shade, of which the following is a specification.

The invention relates to improvements in curtain-fixtures.

10 The object of the present invention is to simplify and improve the construction of curtain-fixtures and to enable curtains and window-shades to be controlled and arranged with greater advantage than heretofore.

15 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

20 In the drawings, Figure 1 is an elevation of a window provided with a curtain-fixture constructed in accordance with this invention. Fig. 2 is a central vertical sectional view. Fig. 3 is a detail sectional view of the pulley and pawl. Fig. 4 is a longitudinal sectional view of the casing. Fig. 5 is a detail view of the pawl.

Referring to the accompanying drawings, 1 designates a longitudinal and approximately semicylindrical casing adapted to receive an ordinary spring-roller 2 and curtain 3 and designed to be arranged at the bottom of a window and to be operated the reverse of the ordinary curtain, which is arranged at the top of a window. The casing 1 is constructed of sheet metal, wood, or any other suitable material and is provided at one end with a circular opening 4 to receive the journal of the curtain-roller 2, and at the other end with a rectangular opening 5 to receive the spring-trunnion of the curtain-roller, and the said casing may be secured to the window-sill or to the sides of the window-casing or to the lower sash, in which case the sashes may be readily reversed when it is desirable to shade the upper portion of the window only. The bearings for the curtain-roller are

preferably formed by plates secured to the inner faces of the ends of the casing.

The curtain is operated by a chain 6, having one end secured to the curtain 3 and passing over a pulley 7, which is mounted in a casing 8, secured to the top of the window-casing. The casing or hanger 8 has the pulleys 7 journaled between its sides 9, and pivoted between the said sides 9 and arranged adjacent to the pulley is a pawl 10, adapted to engage the links of the chain 6 and secure the curtain at any desired point of adjustment, and the free end of the chain 6 is provided with a ring 11 to facilitate the operation. The chain is preferably formed of flat links, and the pawl 10 is provided at its outer end with a V-shaped tooth 12, which is formed by notching the end of the pawl and which is adapted to engage the links of the chain.

It will be seen that the curtain-fixture is simple and inexpensive in construction, adapted to be readily applied to a window, and is capable of being readily arranged and adjusted to shade any portion of a window. It will also be seen that when the curtain is not in use it is concealed within the casing.

What is claimed is—

1. The combination of the longitudinal casing designed to be secured at the bottom of a window, the curtain-roller arranged within the casing, the curtain unrolling upward from the bottom of a window, the hanger designed to be secured to the top of a window, the pulley arranged in the hanger, the pawl pivoted in the hanger, and the chain provided with open links and having one end secured to the free upper end of the curtain and passing around the pulley, any one of the links of the chain being adapted to be engaged by the pawl, substantially as described.

2. In a curtain-fixture, the combination of the casing 1, having its ends provided with bearings, the curtain unrolling upward from the bottom of a window, the roller arranged within the casing and journaled within said bearings, the hanger adapted to be secured



to the top of a window and provided with a pulley, the pawl pivoted between the sides of the hanger and provided with a V-shaped tooth, and the chain having flat open links  
5 and connected to the upper free end of the curtain and passing over the pulley, any one of the links being adapted to be engaged by the pawl, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

MELROSS McENTYRE KILLINGER.

Witnesses:

W. F. REAVIS,  
M. J. LOVELACE.