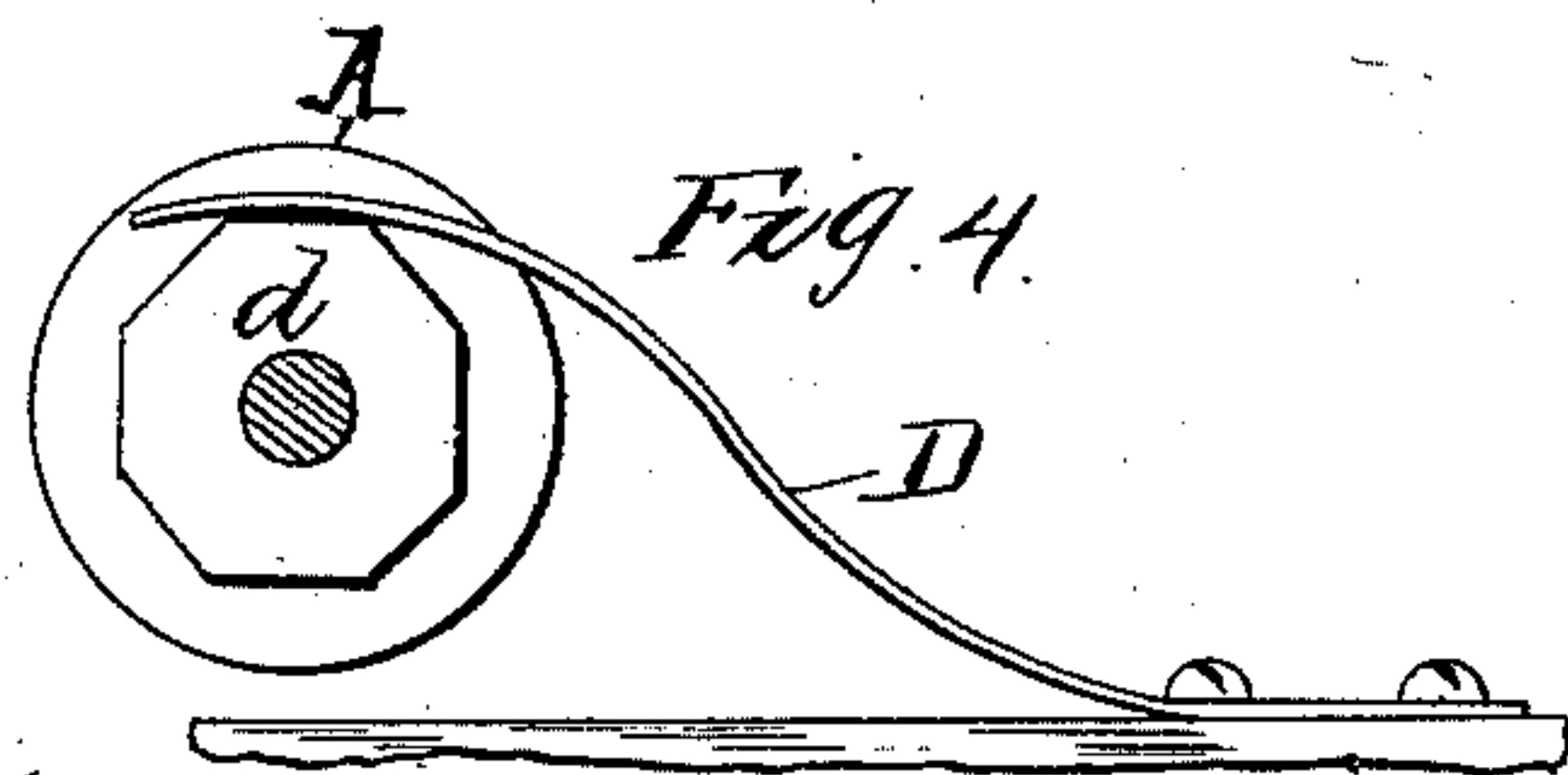
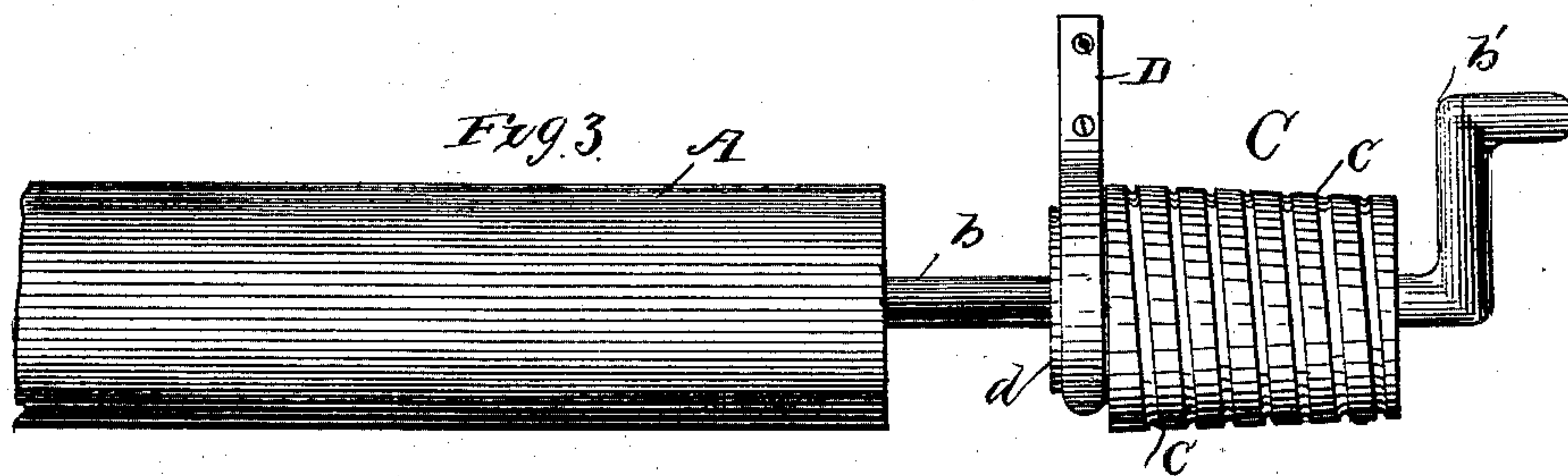
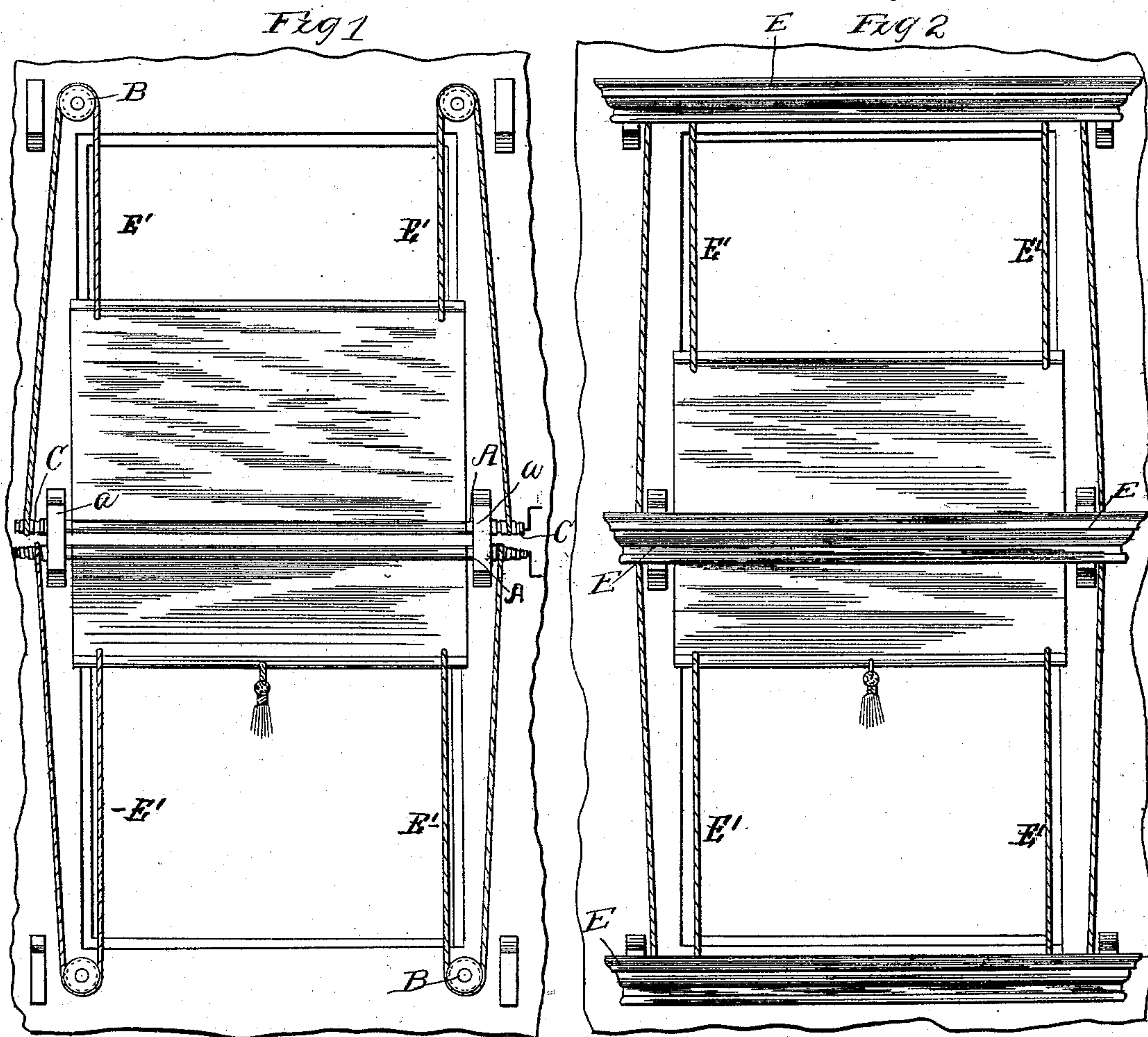


(No Model.)

W. J. COX.  
WINDOW SHADE.

No. 282,277.

Patented July 31, 1883.



WITNESSES  
Chas. R. Burr  
W. E. Bowen.

INVENTOR  
Walter J. Cox  
By *[Signature]* Attorney



# UNITED STATES PATENT OFFICE.

WALTER J. COX, OF WICHITA, KANSAS.

## WINDOW-SHADE.

SPECIFICATION forming part of Letters Patent No. 282,277, dated July 31, 1883.

Application filed March 14, 1883. (No model.)

### *To all whom it may concern:*

Be it known that I, WALTER J. COX, a citizen of the United States of America, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Window-Shades, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to improvements in window-curtains, having mainly for its object to enable the lowering of the curtain from the top or raising it from the bottom, or doing both, to admit air or sunlight at either of said  
15 points; and it consists of means for carrying out this object, substantially as hereinafter more fully set forth or otherwise.

In the accompanying drawings, Figures 1 and 2 are views in front elevation of my improvement as applied to a window, the cornices or coverings of the rolls and their pulleys being removed in one view. Fig. 3 is an enlarged detailed view, showing a broken-away roll and its pulley; and Fig. 4 is a similar end  
25 view of the pulley end of the roll.

In carrying out my invention I employ two curtain-rolls, A A, arranged transversely, and about at the middle of the window, the same being supported in brackets *a a*, fastened to  
30 the window-facings. At points near the four corners of and to the window-frame are hung pulleys B B. CC are conoidal-shaped pulleys applied to opposite ends of the curtain-rolls, as seen in Fig. 1. These pulleys are preferably connected or fastened to the curtain-rolls  
35 by short metallic shafts or rods *b*, which have cranks formed therewith, as shown at *b'*, for the operation of the rolls. These pulleys are spirally grooved upon their peripheries, as at  
40 *c*, Fig. 3, while at their inner ends they are provided with polygonal or angular projections or shoulders *d*, Fig. 4, against which bear flat springs D, screwed or fastened to the window-facing. These springs are designed, in  
45 connection with shoulders *d*, to prevent the curtains from running down from force of gravity when the cords become loosened.

E' E' are the curtain-cords, there being two to each curtain, and their arrangement in connection with each curtain being the same.

Each of the cords of a curtain passes in contact with a pulley, B, one end of each cord being connected or fastened to its curtain, near the side edge thereof, as seen in Figs. 1 and 2, the other end of each cord being connected to  
55 and caused to lay itself into the spiral groove of each of the curtain-pulleys.

Cornices E are connected to the window-facing, so as to cover the curtain-rolls and all the pulleys, imparting to the window a highly ornamental appearance, as observed in Fig. 2.

The springs D, bearing upon the projections *d* of the pulleys C, serve to hold the rolls so as to retain the curtain at any desired point of  
65 elevation.

It will be noticed that as any one of the curtain-cords is acted or exerted upon in the required direction the curtain will be raised or lowered, and that when the lower curtain is lowered the slack cord will be taken up by  
70 the spirality of the groove, as will be also the case with the slack cord of the upper curtain-cord when that curtain is raised. This arrangement will enable the letting of light and air, or only light without air, into the room,  
75 when such is desired, either from the top or bottom of the window, or at both points.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A window-curtain adapted to be raised from the bottom or lowered from the top by means of its cords wound in spiral grooves in conoidal pulleys and actuated by a crank, substantially as shown and described.

2. The combination of pulleys B, conoidal pulleys C, secured to curtain-roll A, crank *b*, and curtain-cords E', substantially as shown, and for the purpose described.

3. The combination of the curtain-roll A, having octagonal projections or shoulders *d*, and springs D, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

WALTER J. COX.

Witnesses:

L. C. HAMILTON,  
H. G. SEE.