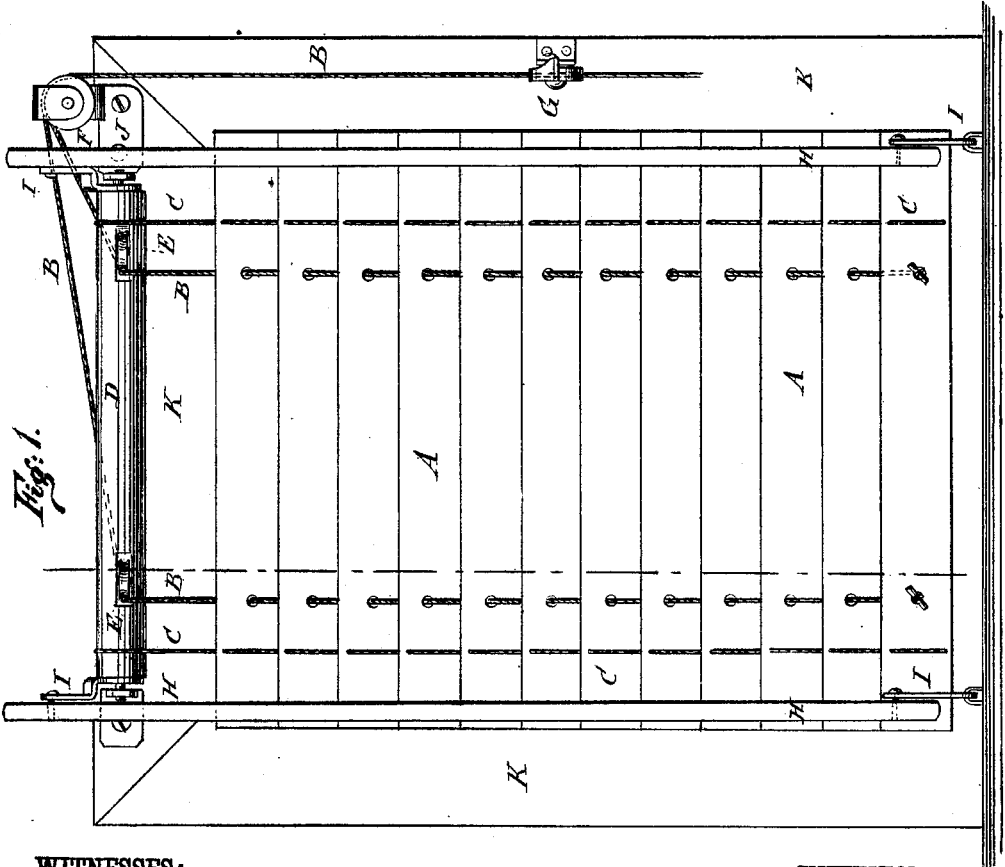
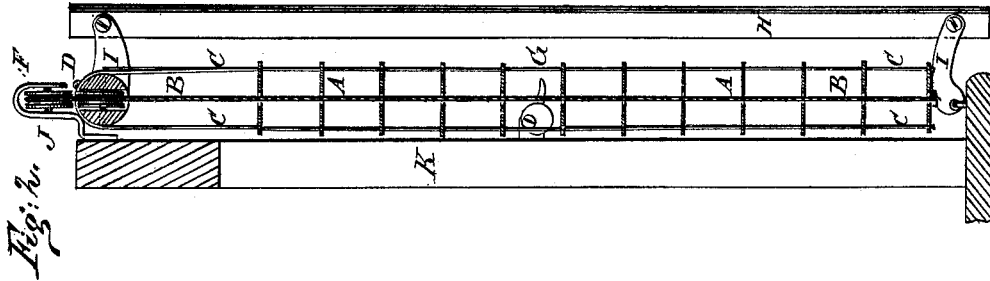


F. J. BECKER.  
Window-Shade.

No. 197,009.

Patented Nov. 13, 1877.



WITNESSES:

*Chas. Nida*  
*J. H. Scarborough.*

INVENTOR:

*F. J. Becker.*  
BY *Munn & Co.*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

FREDERICK J. BECKER, OF HOKAH, MINNESOTA.

## IMPROVEMENT IN WINDOW-SHADES.

Specification forming part of Letters Patent No. 197,009, dated November 13, 1877; application filed September 22, 1877.

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

Be it known that I, FREDERICK J. BECKER, of Hokah, in the county of Houston and State of Minnesota, have invented a new and Improved Blind and Shade, of which the following is a specification:

This invention relates to that class of window blinds and shades in which thin strips of wood are connected together, tilted to shut out or admit more or less light, and raised and lowered by cords passing over pulleys or rollers near the top of the window, and leading down to within easy reach of the hand.

The invention will first be described in connection with the drawings, and then pointed out in the claims.

In the drawings, Figure 1 is a front elevation of my improved blind and shade; Fig. 2, a transverse vertical section of same.

Similar letters of reference indicate corresponding parts.

A are the slats; B, the lifting-cords; C, the tilting-cords; D, the roller; E, two pulleys in roller for guiding the lifting-cords; F, the lifting-cord guide-pulley on frame; G, an eccentric-lever for holding lifting-cords; H, the vertical tilting-rods; I, parallel links, plates, or levers, by which the tilting-rods are attached to the roller and to the window-sill; J, a hanger formed from a single piece of sheet metal, bearing one end of roller-axle, and also pulley F. K is the window-frame.

The slats should be long enough to lap on the window-casing about one inch on each side, and should be each about one-twelfth ( $\frac{1}{12}$ ) of an inch thick, and about one and one-half ( $1\frac{1}{2}$ ) inch wide.

The lifting-cords are two in number, fastened

to the lower slat, passing freely up through holes in all the slats through the roller D, and over pulleys E and F, and down along the window-frame, and under the eccentric-lever. The tilting-cords are fastened to all the slats, and to a pin or stop in the roller, which pin is on top of the roller when the slats are in a horizontal position.

The rods H turn the roller by means of the upper rods I, and open, close, or tilt the shades, as required. The lower links or rods I are attached to window-sill a little in front of the frame, so that when the rods H pass from their highest position toward the wall their weight will press against the slats, and prevent their being blown about by the wind. By placing the pulleys E in the roller, separate bearings do not have to be provided for guide-pulleys.

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

1. The tilting-rods H, roller D, and the upper levers I, arranged as specified, and for the purpose of tilting the slats A.

2. The slats A, cords B and C, roller D, pulleys E and F, lever G, rods H, levers I, and hanger J, combined, arranged, and operating substantially as described, and for the purposes set forth.

3. The vertical rods H and links or parallel rods I, the lower ones of which are fastened to the sill outside of or in advance of the frame, as described, for the purpose of preventing the blowing about of the slats by the wind.

FREDERICK JOSEPH BECKER.

Witnesses:

JULIUS BURKART,  
J. G. GROOT.