

F. C. MARTIN.

Improvement in Window Shades.

No. 124,146.

Patented Feb. 27, 1872.

Fig. 1.

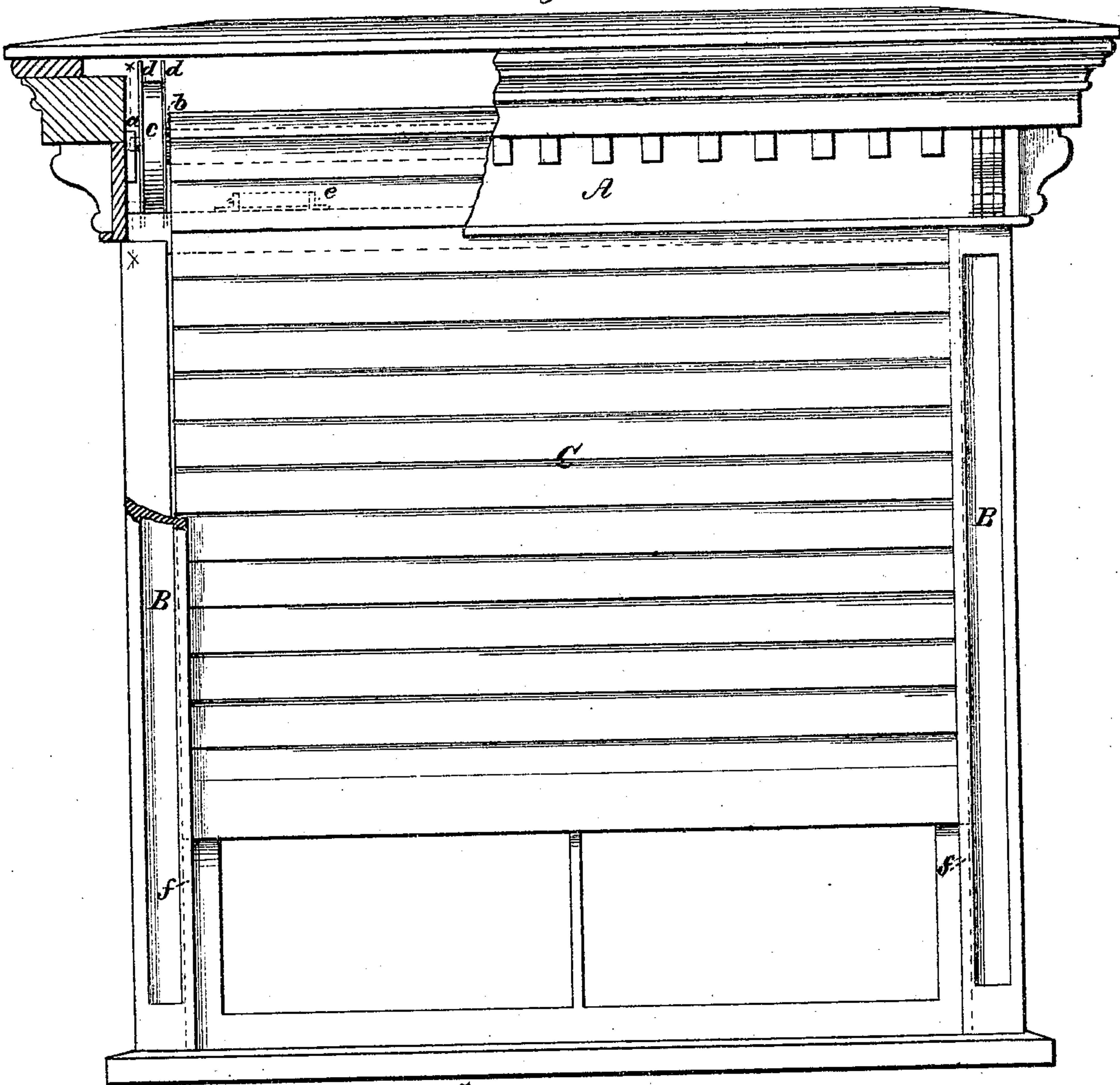


Fig. 2.

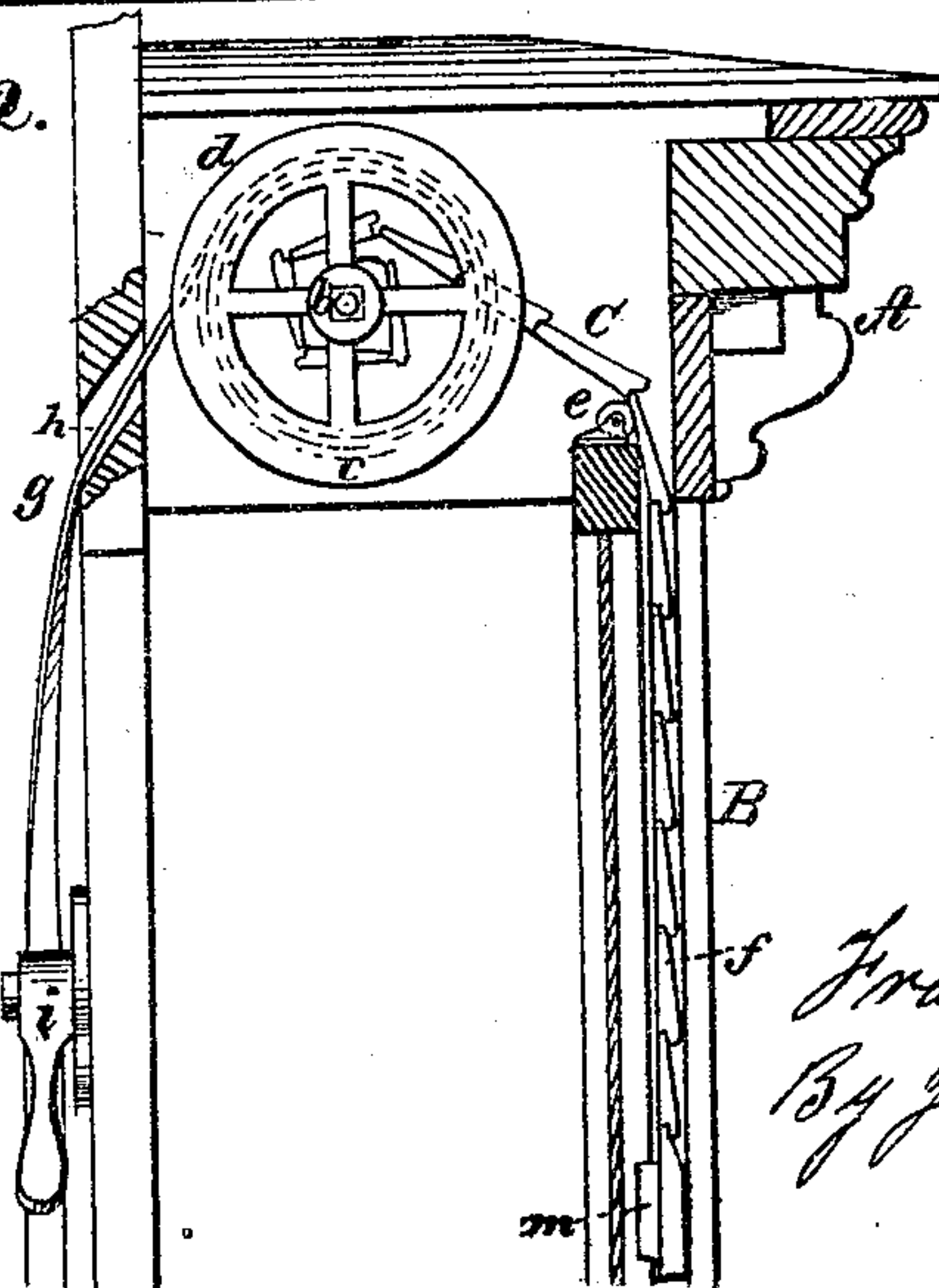


Fig. 4.

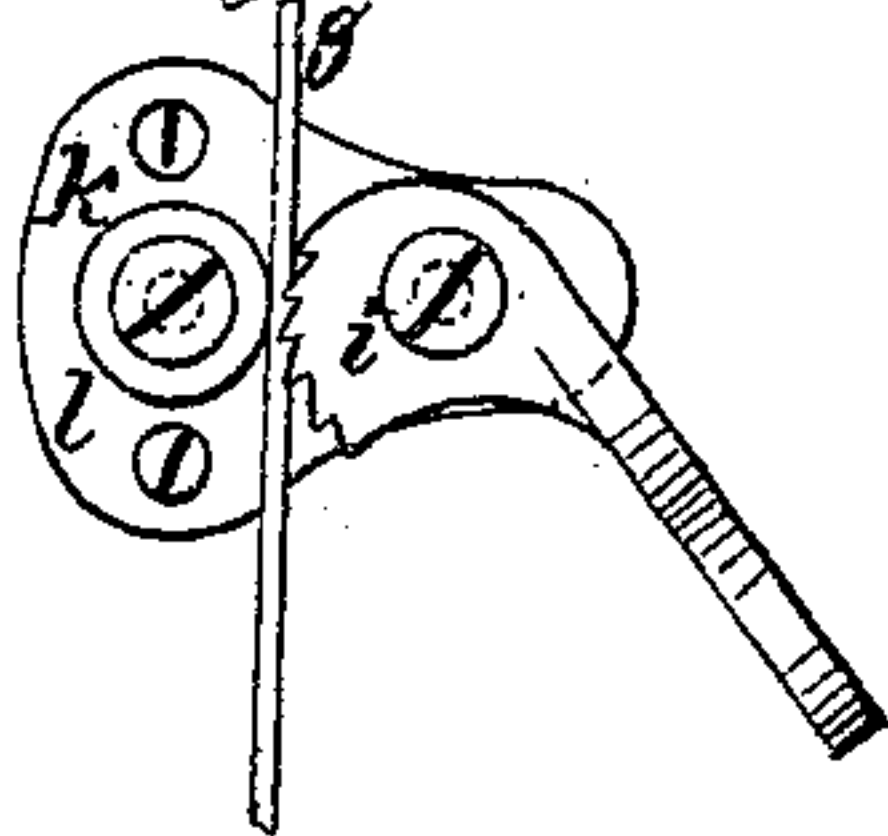
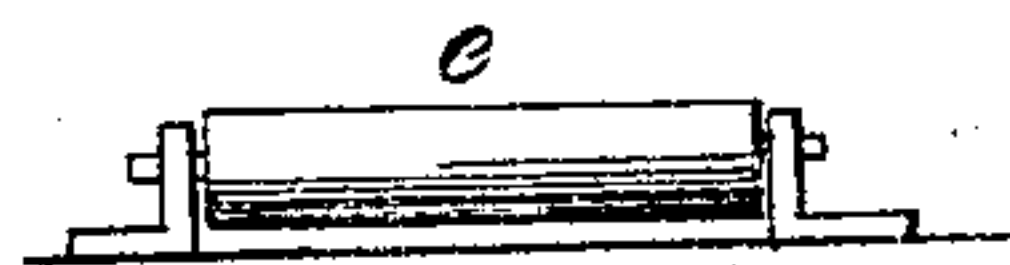


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANCIS C. MARTIN, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN WINDOW-SHADES.

Specification forming part of Letters Patent No. 124,146, dated February 27, 1872.

To all whom it may concern:

Be it known that I, FRANCIS C. MARTIN, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Combined Roller Window Shade or Screen, of which the following is a specification:

My invention relates to certain improvements in window screens and shades, the object of which is to combine in one device the offices of inside or outside shutters and curtains or shades; and it consists of a flexible screen or shade, moving in guides in the window-frame and over friction-rollers on said frame, and secured to a roller which is provided with a drum, around which the operating-cord is wound, which cord passes through the frame inside the room, where it is held between a cam and roller.

In the drawing, Figure 1 is a front or outside elevation of a window-frame and cap, part of which frame is broken away to expose the drum and shade or screen guides. Fig. 2 is a vertical section taken on the line *xx*, Fig. 1. Fig. 3 is a front elevation of one of the friction-rollers over which the shade or screen passes. Fig. 4 is a front elevation of the cam and roller for holding the cord.

A represents the window-cap, and B B the sides of the frame. A space is left behind the cap; and on the sides of the frame, up in this space, suitable bearings *a a* are arranged, in which the journals of a roller, *b*, rest. This roller *b* has secured upon one of its ends, which may be squared, a drum or pulley, *c*, provided with flanges *d d*. This drum and its flanges are cast in one piece. C is a screen, shade, or shutter, made of slats of wood or other material, secured to canvas or strips of cloth, leather, &c., and attached to the roller *b*. Friction-rollers *e* are secured to a cross-piece on the frame, and over said rollers the screen passes, on the outside or inside of the window-sash, and in grooves *f f*, which serve as guides for the screen as it is drawn up and down. The screen is provided with a weight, *m*, to facilitate its fall and hold it down in place. Around

the drum *e* I wind a cord, *g*, which is secured to said drum by one end. It passes thence through an opening, *h*, in the wall or frame; and the screen having been drawn to the proper height, the cord holding it is secured between a cam, *i*, having a serrated or corrugated face and a similarly-roughened roller, *k*, both being fixed to a plate, *l*, which is secured to the frame by screws, &c., as seen in Fig. 4.

The screen or shade can be arranged to fall inside or outside of the window, so as to serve as inside or outside shutters or as a curtain; and, of course, the friction-rollers *e* will have to be arranged further back than shown in the drawing if the shade is to be used inside the window, and the grooves *f* will also have to be arranged to correspond.

To raise the screen the cord *g* must be pulled down, which rolls the screen around the roller *b*; and when it is at the desired height the cord is held between the cam *i* and roller *k*; and when it is desired to permit its fall, the cord *g* has simply to be released, when it will fall of its own weight. The shade can be adjusted at any desired height by means of the cord and the cam and roller, so as to regulate the amount of light admitted to the room.

What I claim as my invention is—

1. The flexible screen or shade C, in combination with the grooves *f*, friction-rollers *e*, and roller *b*, constructed and operating substantially as described.

2. The drum or pulley *c*, cast in one piece with the deep groove and flanges *d d*, in combination with a cord, *g*, roller *b*, stop *i*, roller *l*, and shade or shutter, composed of strips arranged upon canvas, leather, or other material, and adapted to roll up, all operating substantially as specified.

In testimony that I claim the foregoing I have hereunto signed my name this 6th day of February, 1872.

FRANCIS C. MARTIN.

Witnesses:

ALBERT H. NORRIS,
JAMES L. NORRIS.