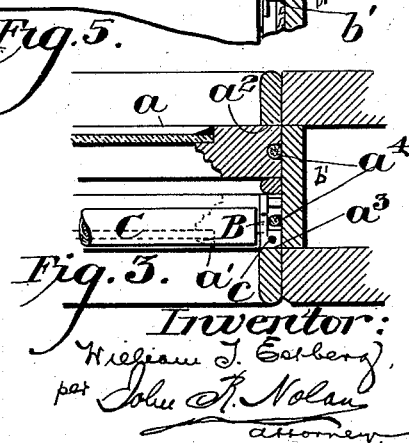
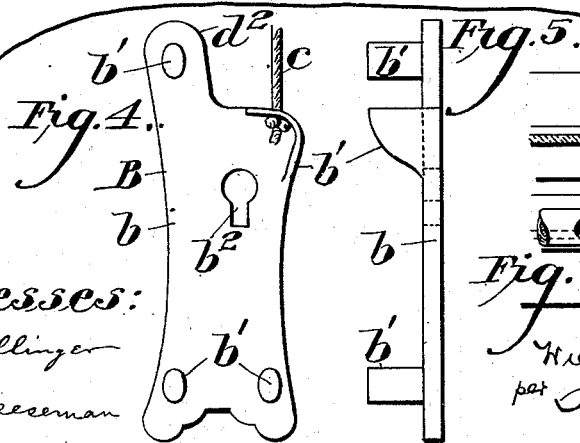
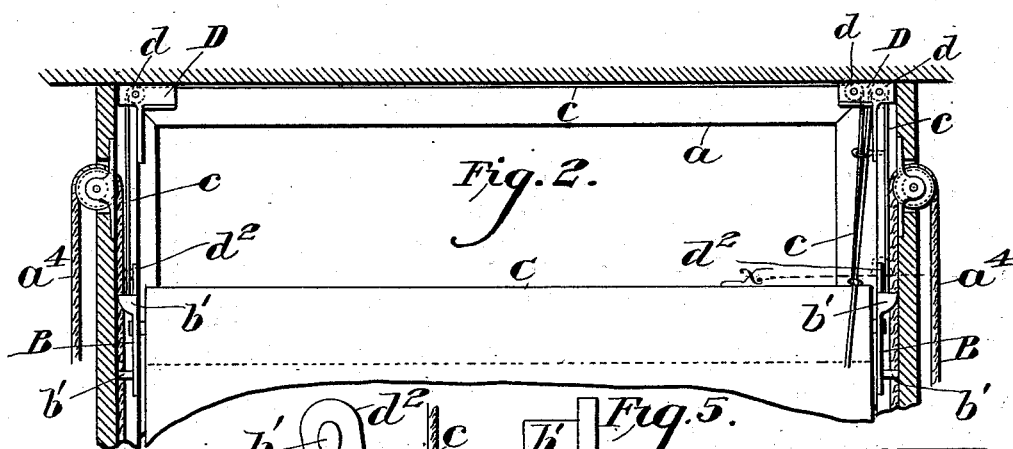
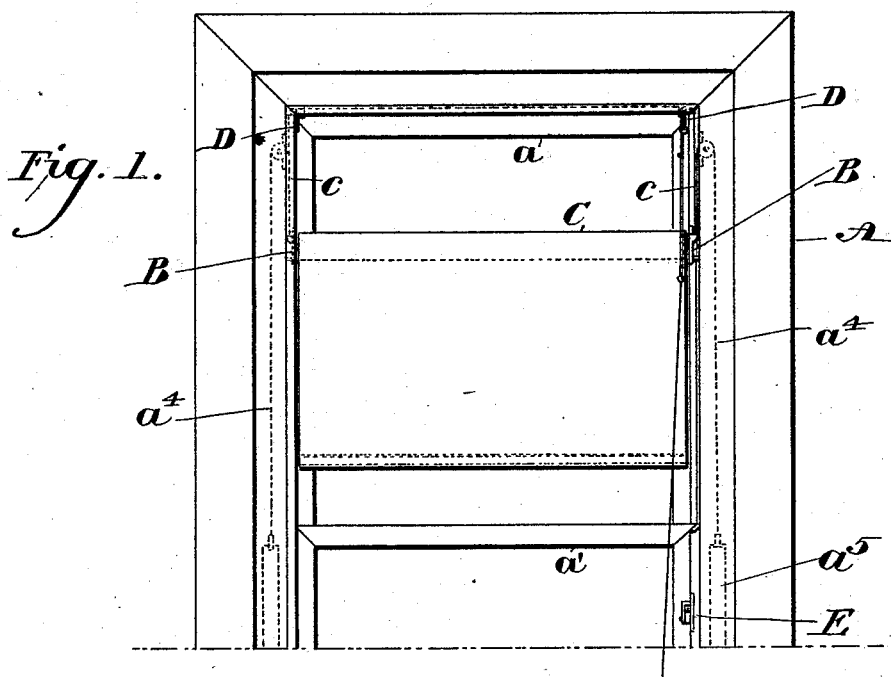


(No Model.)

W. T. ESTBERG.
WINDOW SHADE FIXTURE.

No. 524,978.

Patented Aug. 21, 1894.



Witnesses:
Mr. G. Ballinger
H. L. Cheeseman

Inventor:
William T. Estberg,
per John T. Nolan
attorney.

UNITED STATES PATENT OFFICE.

WILLIAM T. ESTBERG, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
JAMES K. FENNEL AND WILLIAM H. CLOAK, OF SAME PLACE.

WINDOW-SHADE FIXTURE.

SPECIFICATION forming part of Letters Patent No. 524,978, dated August 21, 1894.

Application filed June 22, 1893. Serial No. 478,424. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. ESTBERG, a citizen of the United States, residing in the city and county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Window-Shade Fixtures, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

The object of my invention is to provide a simple and efficient means whereby a shade roller may be so mounted within the usual sash groove of a window frame as to be vertically movable, as well as rotatable, therein, and this without affecting the free action of the cords to which the sash weights are attached.

To this end the invention consists in a pair of sliding brackets of novel construction in which the shade roller is supported, in combination with suitable cord and pulley devices for operating said brackets, as will be hereinafter fully set forth.

Referring to the annexed drawings,—Figure 1 is an elevation, partly in section, of a window frame equipped with my improvement. Fig. 2 is a vertical section through the upper portion of the same, enlarged. Fig. 3 is a transverse section as on the line x of Fig. 2. Figs. 4 and 5 are front and edge elevations, respectively, of the sliding shade-supporting bracket.

A represents a window-frame; a, a' , the upper and lower sashes mounted in the usual parallel grooves a^2, a^3 , respectively, and a^4 the cords to which the usual sash weights a^5 are attached.

B B represent my improved brackets in which the shade-roller C is mounted. These brackets each comprise a plate b provided on one side, near the corners thereof, with studs or projections b' , one of which latter is perforated to receive a cord c . The plate is provided with a suitably-disposed orifice b^2 for the reception of the stud of the shade roller, which roller is preferably of the spring-controlled pattern. These brackets are fitted to the upper portions of the groove a^3 in which the lower sash is mounted, the studs or projections of the brackets resting upon the

faces of the respective grooves so as not to interfere with the free movement of the sash cords.

Secured in the upper corners of the window frame are roller supporting brackets D, over the rollers d of which pass the cords c that suspend the brackets B. Thus, if said cords be properly manipulated the brackets, with the shade-roller therein supported, may be raised and lowered at will, and whatever be the adjustment of the roller its spring-controlled shade may be operated in the usual manner. In this instance one of the brackets is provided with a single roller for the passage of the cords c , while the other bracket is equipped with two rollers for the passage of the two cords, so that the roller supporting brackets may be operated from one side of the window. The depending ends of the two cords are united so as to constitute, in effect, a single cord, which latter is adapted to be detachably held in a suitable fastening or clamping device E on the side of the window frame for the purpose of securing the brackets and the roller in the various positions of vertical adjustment.

I have not deemed it necessary to show and describe a particular cord fastener, as any suitable device to the same end may be employed, as, for example, a nail or hook.

It will be observed that I have formed each bracket B with a projection d^2 on its upper edge. This projection is to act as a stop or abutment for the bracket when it has reached the extreme upper end of the groove.

I claim as my invention—

In a window shade fixture, the combination with the window frame, of roller supporting brackets each comprising a plate provided with studs or projections and fitted to the sash grooves so as to be vertically movable therein, and means for operating said brackets, substantially as described.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

WILLIAM T. ESTBERG.

Witnesses:

JOHN R. NOLAN,

WM. B. BALLINGER.