(No Model.)

H. L. KEYES.

WINDOW SHADE CARRIER.

No. 603,403. Patented May 3, 1898.

Fig. 1.

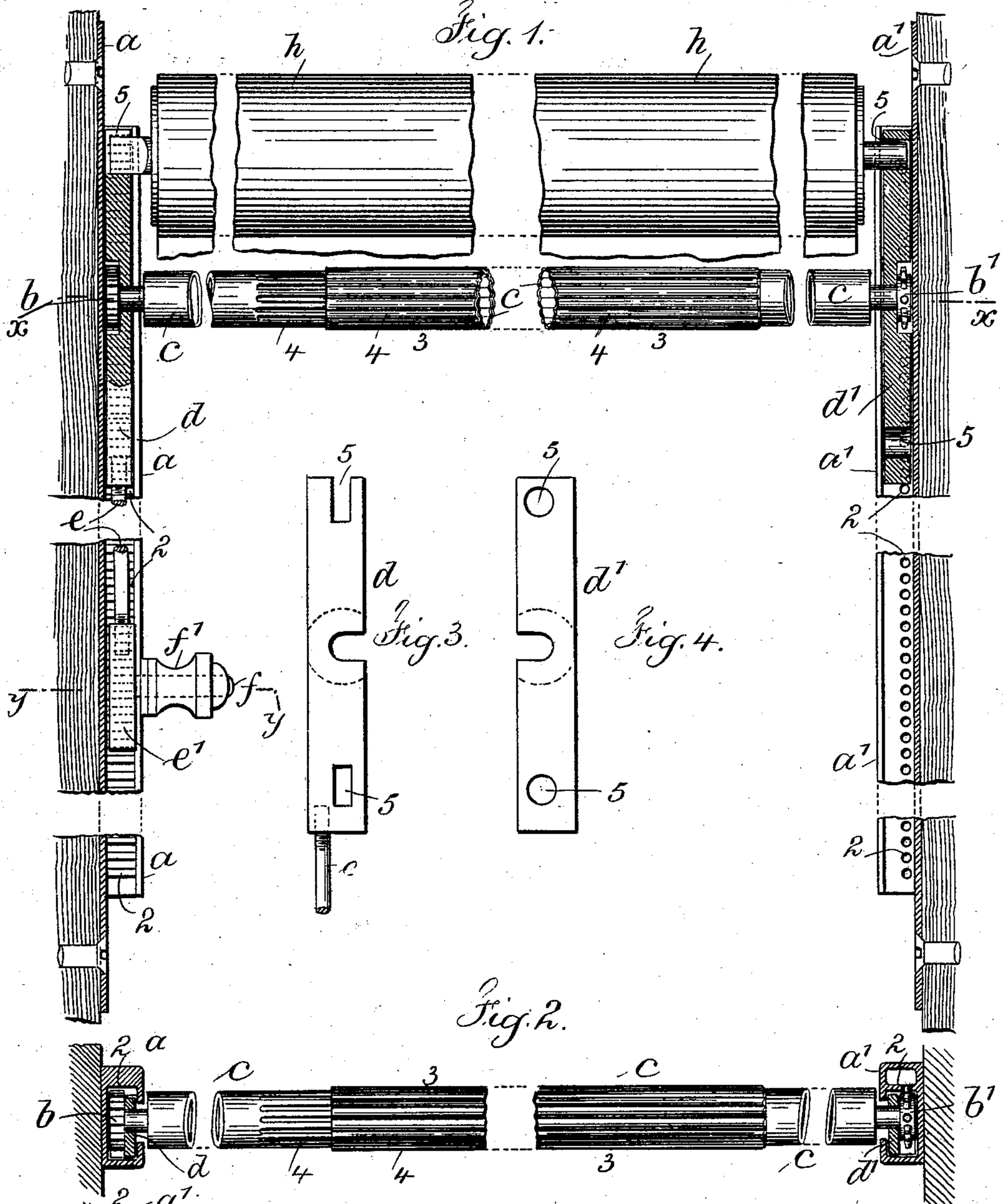

Fig. 3.

Fig. 4.

Fig. 2.

Fig. 5.

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WINDOW-SHADE CARRIER.

SPECIFICATION forming part of Letters Patent No. 603,403, dated May 3, 1898.

Application filed September 7, 1897. Serial No. 650,715. (No model.)

To all whom it may concern:

Be it known that I, HERBERT L. KEYES, a citizen of the United States, residing at Hackensack, in the county of Bergen and State of New Jersey, have invented a new and useful Improvement in Window-Shade Carriers, of which the following is a specification.

The object of this invention is to provide means for carrying the window-shade and its roller bodily up or down in the window-opening and holding the same in the desired position.

In carrying out my invention I provide slotted bars with racks, which bars are adapted to be secured upon the stop-bead or opposite faces of the window-casing. An extensible cross-bar is provided with a pinion on each end, the pinions being within the slotted bars and engaging the racks. A portion of the extensible cross-bar is preferably made tubular, and at this point the tubular parts are of the same and coinciding sectional configuration. Bearing-blocks are provided with recesses to engage the journaled ends of the cross-bar adjacent to the pinions. These bearing-blocks are within the slotted bars, and to one of them is provided a rod, to the lower end of which is connected a screw-clamp by which the bearing-block can be held in any desired position to which it may be moved. These bearing-blocks above and below the extensible rod are perforated to receive the respective pivot ends of the fixtures upon the shade-roller.

In the drawings, Figure 1 is an elevation and partial section representing my improvement. Fig. 2 is a sectional plan of the same at the line *x x*. Figs. 3 and 4 represent face views of the bearing-blocks, and Fig. 5 is a section at the line *y y* of Fig. 1.

The slotted bars *a a'* are to be secured in any desired manner upon the stop-beads or upon the opposite inner or outer faces of the window-casing, the details of the manner of fastening being immaterial. These bars are preferably made of sheet metal, and within each bar is a rack 2, adapted to engage a pinion *b* or *b'*. The racks 2 may be formed of separate strips of metal secured within the slotted sheet-metal bars, or they may be formed by perforating the slotted bars themselves. These pinions *b b'* are at the ends of an extensible cross-bar *c*, which bar is preferably made tubular in the middle portion at 3, one tube sliding within the other, so as to accommodate the carrier to different widths of windows. These tubes sliding or telescoping the one within the other are preferably made of parts of the same and coinciding sectional configuration. They may, however, be made with longitudinal corrugations 4, the corrugations of the inner tube sliding within the corrugations of the outer tube, as thereby a stiffer telescoping device is produced.

Within the slotted bars *a a'* are the bearing-blocks *d d'*. (Shown in Figs. 3 and 4.) These bearing-blocks are recessed about centrally in one edge for the respective ends or journals of the extensible cross-bar adjacent to the pinions. These bearing-blocks are received within the slotted bars with the pinions and slide therein, so as to keep the teeth of the pinions properly in gear with the racks. These bearing-blocks are made alike, except that the block *d* is provided with an extension or rod *e*, to the lower end of which another block *e'* is secured. The block *e'* is also within the sliding bar, and to it is secured the threaded stem *f* of the clamping-screw *f'*. The object of this clamping-screw is to secure the bearing-block *d* to the slotted bar *a* in any position to which it may be moved. This clamping action also secures the bearing-block *d'* in the slotted bar *a'*, because the pinion at one side being stopped and the extensible cross-bar held, it is also held at the other side.

In the bearing-blocks *d d'*, above and below the position occupied by the extensible cross-bar, there are openings or ends adapted to receive the fixtures at the ends of any ordinary curtain or shade roller. These openings are adapted to receive an ordinary curtain or shade roller or the fixtures of the well-known spring-actuated shade-roller, as at *h*. These openings are shown at 5, and the shape of the same is immaterial so long as they are adapted to receive the pivots of the ordinary or spring-actuated shade-roller.

It will now be understood that by slackening the screw-clamp *f'* the rod and bearing-blocks *d e'* can be moved up and down in the slide-bar *a* with freedom, and in so doing the

pinion *b* will be rotated, and the cross-bar *c* will be rotated by this pinion and will in turn rotate the pinion *b'* at the other end thereof and upon the other side of the window, which pinion, turning in contact with the rack-teeth of the slotted bar *a'*, will carry the bearing-block *d'* bodily up and down in the slotted bar *a'* to the same extent that the bearing-blocks *d e'* are carried by hand at the other side of the window-frame, thus obtaining uniformity of movement and parallelism of the parts. The slotted bars *a a'* may be of any desired length. They are, however, preferably long enough to extend from the upper part of the window-casing down to and below the meeting-rails of the sashes, so that the curtain or window-shade may occupy any intermediate position between these two points that may be desirable either for light or when the upper sash of the window is lowered for air. In whatever position the extensible cross-bar and attendant parts may be placed in the slotted bars the window-shade can be drawn down to the bottom of the window, so as to exclude light and view and at the same time leave the upper part of the window open to light or air, or both.

I claim as my invention—

1. In a window-shade carrier, the combination with the slotted bars and their racks, of pinions engaging the racks, bearing-blocks within the slotted bars and receiving the journals of the pinions, an extensible cross-bar upon whose respective ends are the pinions, said bar being made of two telescoping tubular portions of the same and coinciding sectional configuration, and a clamp for holding the bearing-block at one side of the window, substantially as set forth.

2. In a window-shade carrier, the combination with the slotted bars and their racks, of pinions engaging the racks, bearing-blocks within the slotted bars and receiving the journals of the pinions, an extensible cross-bar upon whose respective ends are said pinions, the same extending across the window between the slotted bars and a clamp for holding the bearing-block at one side of the window, substantially as set forth.

3. In a window-shade carrier, the combination with the slotted bars and their racks, of pinions engaging the racks, bearing-blocks within the slotted bars receiving the journals of the pinions and having openings or notches above and below said journals adapted to receive the fixtures upon the ends of the window-shade roller, an extensible cross-bar upon whose ends are said pinions and extending across the window and by which the pinions are rotated and the respective bearing-blocks moved uniformly and parallel to one another, and a clamp for holding the bearing-block at one side of the window, substantially as set forth.

Signed by me this 2d day of September, 1897.

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Witnesses:

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