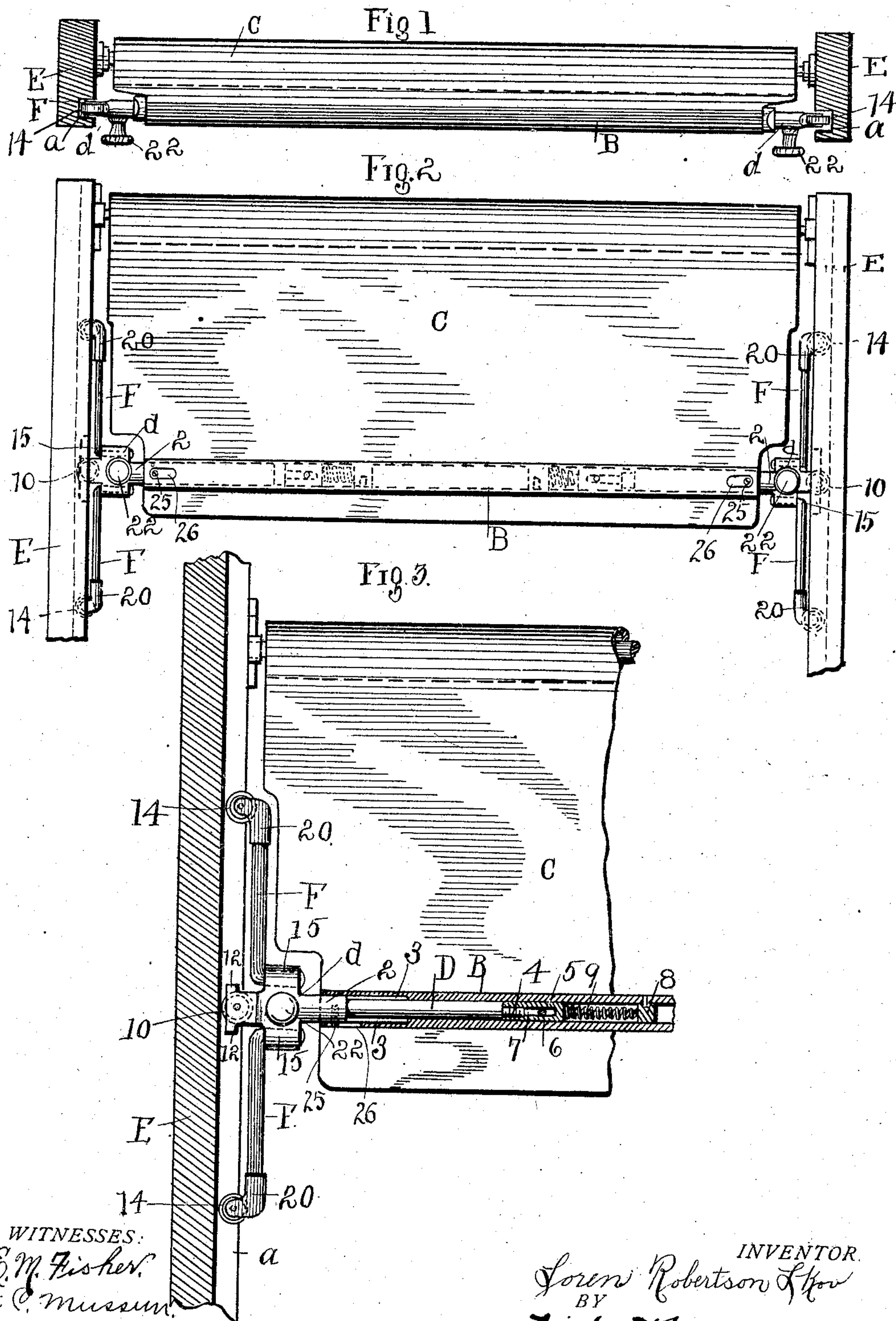


No. 850,186.

PATENTED APR. 16, 1907.

S. R. SKOV.
WINDOW CURTAIN OR SHADE FIXTURE.

APPLICATION FILED NOV. 19, 1906.



WITNESSES:
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TO TERENCE SCULLIN, OF CLEVELAND, OHIO.

WINDOW CURTAIN OR SHADE FIXTURE.

NO. 850,186.

Specification of Letters Patent.

Patented April 16, 1907.

Application filed November 19, 1906. Serial No. 344,045.

To all whom it may concern:

Be it known that I, SOREN ROBERTSON SKOV, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Window Curtain or Shade Fixtures; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in window curtain or shade fixtures, all substantially as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of my improved fixture shown in relation to the window-frame and with a shade or curtain thereon, as also in Figs. 2 and 3. Fig. 2 is a front elevation of the fixture in the same relation as in Fig. 1. Fig. 3 is an elevation of one end of the fixture and window-frame, both parts being partly in section.

This invention proceeds on the theory that there are numerous defects in window curtain and shade fixtures as they are found in homes and in steam and electric cars, or wherever shades that are adapted to run up and down are used, and particularly in that such shades either have no means at all to guide them in raising or lowering or the guides employed are imperfect and do not keep the shade or curtain from running sideways, and thereby tearing the edge thereof or inflicting other injury. Sometimes effort is made to overcome these objections in cars by using a transverse bar or rod fixed in the lower end of the curtain with shoes at either end adapted to run in grooves in the carposts at the sides of the window but such constructions require that the curtain be run straight, or one side or the other will run out, and it does not prevent the guide-bar and shoe at one side being lifted higher than the other side, thereby pinching in the groove and preventing raising or lowering the curtain, and not infrequently causing the fixture to be broken by inexperienced hands. I am aware that other attempts have been made to meet these objections in curtain and shade fixtures by the use of wires in the sides of windows with which the curtains were engaged; but this expedient also has been found unsatisfactory for sundry reasons, and espe-

cially because the curtain worked hard, and the fixture was short-lived and expensive to repair.

My invention is designed to overcome and obviate the objections above enumerated and to provide a fixture which is easy of operation and both simple and inexpensive and which is so constructed as to render it impossible to run one side faster or higher or lower than the other or to get out of guiding relation.

To these ends the invention comprises a hollow or tubular rod or base B, approximately as long as curtain or shade C is wide and of weight corresponding to size of curtain and place of use.

D represents a bar or rod which is slidably and rotatably mounted in the end of tube B, forming an extension thereof and provided with a head *d*, as shown in Figs. 2 and 3, and a relatively enlarged portion 2 next within said head adapted to enter an enlarged annular space 3 in the end of tube B, which provides a sleeved sliding connection at this point, and said tube has its inner extremity reduced and threaded at 4 to engage in socket 5, which is slidably anchored in the tube at this point by pin 6 through transverse slot 7 therein. A fixed stop or abutment 8 serves as a wall for interposed spring 9 bearing against socket 5. Thus a spring-pressed axial socket engagement is made for rod D by which said rod is yieldingly held out in working position, but may be pressed inward when occasion demands, as for releasing the device from the window.

The foregoing construction is common to both forms of fixture shown; but in Fig. 3 head *d* has a roller 10 mounted between ears 12, which are adapted to run between the sides of vertical channel *a* in the window frame or casing and serve as guides for said head and rod D, and said ears have sufficient length to serve this purpose, while the real engagement of the device in said channel is made by roller 10. This relieves friction and makes the action easy.

Now in order to give the curtain or shade an extended bearing at each side and prevent possible tilting or running of one side faster or farther than the other I employ the arms F in Fig. 2. Arms F are preferably loosely or pivotally engaged oppositely in head *d* and carry rollers 14 in their outer end adapted to run in the channel in window frame or casing E in alinement with roller 10. The pivot of said arms is lateral; but they are un-

yielding otherwise, so that neither arm can be pressed inward at its end to release it from its working channel or be otherwise disengaged therewith without disengaging both arms at the same time, and this can only be done by inward pressure upon rod D against spring 9. Of course it is understood that the equipment is exactly the same at both sides of the window or curtain.

The four contact points or rollers 14 constitute practically the four corners of a rigid rectangular frame with a height of such proportions that it is impossible to pinch the frame in the grooves or channels *a* in which it operates. However, the bending of the arms at right angles at 15 and engaging the same pivotally in head *d* enables the device to follow channels that are more or less devious or sinuous and which helps to avoid binding in the channel. Of course if the channels were preferably straight or the lateral play therein of the several rollers were quite free there might not be need of pivots here or there to make accommodation against pinching or binding as the curtains are run up or down.

To provide for fully opening and closing the curtain with long arms F and G, I may extend the channels or grooves *a* in the window-frame through the window-sill below and the frame-head above and which is not noticeable. It will also be observed that channels or grooves *a* are vertically inside of the plane in which the curtain is mounted at the top of the window, so that the top fixtures thereof would not be in the way of running said channels *a* up as far as may be desirable to fully raise the curtain. Knobs 22 are provided to take hold of and press the fixtures inward to release them from channels *a* when the curtain is to be removed or replaced.

The terms "shade" and "curtain" are used interchangeably herein and mean the same thing; but "shade" is recognized as the more common name for window-covers of this kind.

Rod D is provided with a screw 25, which projects and plays within an oblong opening 26 in the outer end of tube B. This arrangement gives all the free play required in the operation of the device, but prevents rod D from being unscrewed from socket 5 until screw 25 is removed.

What I claim is—

1. A fixture for the free ends of window-shades comprising a tube and end pieces removably fixed and adapted to slide therein, springs bearing against the ends of said end pieces in said tube, rigid guide-arms pivotally mounted on said end pieces to turn sidewise therein, and the said end pieces having bearing portions in the same vertical plane as the outer ends of said guide-arms and adapted to hold said pieces in right working relations in the window-frame.

2. A window-frame having channels in its sides, in combination with a shade-rod and shade-guides thereon operatively engaged in said channels and constructed to prevent turning sidewise therein, and rigid arms pivoted in the said guides and having inwardly-extended portions engaged in said channel.

3. In window-shade fixtures, a shade-rod and guides thereon each comprising a guide-head having a substantially flat-sided guide portion at its end and rigid arms pivoted on said guide-head having bearings on their ends in the same working plane as said flat-sided guide portion and free to move in a plane at right angles to said rod.

4. A guide-fixture for window-shades comprising a rod having tubular ends and slots lengthwise in said ends, guides for the shade mounted in said rod, and projections thereon extending into said slots, springs behind said guides and said guides having bearings at their front constructed to hold the fixture in right working position, and rigid guide-arms having right-angled ends pivoted in said guides and free to move in a plane at right angles to the said rod.

5. The combination of the tubular shade-rod, the guides on the ends thereof adapted to slide lengthwise in said ends and springs holding said guides out in working position, rigid guide-arms pivotally mounted on said guides and free to move in a plane at right angles to the said rod and outward projections on said guides adapted to be grasped by hand to press them inward and release them from the window.

In testimony whereof I sign this specification in the presence of two witnesses.

SOREN ROBERTSON SKOV.

Witnesses:

R. B. MOSER,
E. M. FISHER.